

# **ATTACHMENT 35**

CONFIDENTIAL

UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF CALIFORNIA

\_\_\_\_\_  
CISCO SYSTEMS, INC., )  
Plaintiff, )  
vs. ) Civil Action No.:  
ARISTA NETWORKS, INC., ) 5:14-cv-05344-BLF (PSG)  
Defendant. )  
\_\_\_\_\_)

CONFIDENTIAL

VIDEOTAPED DEPOSITION OF DEVADAS PATIL  
Palo Alto, California  
Sunday, February 21, 2016  
Volume 1

Reported by:  
RACHEL FERRIER, CSR No. 6948  
Job No. 2223126

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15 taken on behalf of the Defendant, at Wilson Sonsini	15
16 Goodrich & Rosati, 650 Page Mill Road, Palo Alto,	16
17 California, beginning at 9:25 a.m. and ending at	17
18 3:44 p.m. on Sunday, February 21, 2016, before	18
19 RACHEL FERRIER, Certified Shorthand Reporter No. 6948.	19
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8 San Francisco, CA 94111	7 Devadas Patil from Sean Park 22
9 415.773.6682	8 Exhibit 312 Resume for Devadas Patil 29
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12 For Defendant:	10 01611243) 49
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14 BY: MATTHEW D. CANNON	12 Analysis for the Data Networking
15 Attorney at Law	13 Market" by Devadas Patil 107
16 50 California Street, 22nd Floor	14 Exhibit 315 IEEE 802.1AB Standard for
17 San Francisco, CA 94111	14 local and metropolitan
18 415.875.6412	15 area networks
19 matthewcannon@quinnemanuel.com	16 (Bates ARISTANDCA00017907
20	16 - 18078) 117
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22 Videographer:	18 "Corrected Information
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<div>1 Palo Alto, California; Sunday, February 21, 2016</div> <div>2 9:25 a.m.</div> <div>3</div> <div>4 THE VIDEOGRAPHER: Good morning. 09:25AM</div> <div>5 THE WITNESS: Morning. 09:25AM</div> <div>6 THE VIDEOGRAPHER: We are on the record at 09:25AM</div> <div>7 9:25 a.m. on February 21st, 2016. 09:25AM</div> <div>8 This is the video-recorded deposition of Devadas 09:25AM</div> <div>9 Patil. 09:25AM</div> <div>10 My name is Soseh Kevorkian, here with our Court 09:25AM</div> <div>11 Reporter, Rachel Ferrier. We are here on behalf of 09:25AM</div> <div>12 Defendants at 650 Page Mill Road in Palo Alto. 09:25AM</div> <div>13 The caption of this case is Cisco Systems, 09:25AM</div> <div>14 Incorporated, versus Arista Networks, Incorporated, Case 09:25AM</div> <div>15 No. 5:14-cv-05344- BLF(PSG). 09:25AM</div> <div>16 Please note that audio and video recording will 09:25AM</div> <div>17 take place unless all parties agree to go off the 09:26AM</div> <div>18 record. 09:26AM</div> <div>19 Microphones are sensitive. They pick up 09:26AM</div> <div>20 whispers, private conversations, and all cellular 09:26AM</div> <div>21 interference. 09:26AM</div> <div>22 At this time, would counsel and all present 09:26AM</div> <div>23 please identify themselves for the record. 09:26AM</div> <div>24 MR. WONG: Ryan Wong from Keker &amp; Van Nest for 09:26AM</div> <div>25 Defendant Arista Networks. 09:26AM</div> <div>Page 7</div>	<div>1 [REDACTED]</div> <div>2 Q Anything else? 09:27AM</div> <div>3 A That's the only one I do use. 09:27AM</div> <div>4 Q Okay. And you current -- or, excuse me, strike 09:27AM</div> <div>5 that. 09:27AM</div> <div>6 You previously worked for Cisco; correct? 09:27AM</div> <div>7 A That's correct. 09:27AM</div> <div>8 Q Did you have an e-mail address when you were 09:27AM</div> <div>9 employed at Cisco? 09:27AM</div> <div>10 A Yes. 09:27AM</div> <div>11 Q And what was that e-mail address while you were 09:27AM</div> <div>12 employed at Cisco? 09:27AM</div> <div>13 A If I recall from five years ago, it's 09:27AM</div> <div>14 dpatil@cisco.com, I think. 09:27AM</div> <div>15 Q Okay. Mr. Patil, are you being represented by 09:28AM</div> <div>16 counsel at this deposition? 09:28AM</div> <div>17 A Yes. 09:28AM</div> <div>18 Q Okay. And who's representing you at this 09:28AM</div> <div>19 deposition? 09:28AM</div> <div>20 A Matt Cannon. 09:28AM</div> <div>21 Q Mr. Cannon -- 09:28AM</div> <div>22 A Mr. Cannon -- 09:28AM</div> <div>23 Q -- to your left? 09:28AM</div> <div>24 A Correct. 09:28AM</div> <div>25 Q Have you ever been deposed before, Mr. Patil? 09:28AM</div> <div>[REDACTED]</div>

<p>1 BY MR. WONG: 11:09AM</p> <p>2 Q Can you describe for me, just so I can 11:09AM</p> <p>3 understand, at what -- what are the various stages, in 11:09AM</p> <p>4 your mind, are a part of the development of the LLDP 11:09AM</p> <p>5 features at Cisco? 11:09AM</p> <p>6 A Back then, we were following what is probably 11:09AM</p> <p>7 known as waterfall model, and it was a classic waterfall 11:10AM</p> <p>8 experience, in a sense, that there was market analysis, 11:10AM</p> <p>9 slash, requirements gathering. Then there was 11:10AM</p> <p>10 architecture, and then there was design, and then there 11:10AM</p> <p>11 was implementation, and then there was testing, in each 11:10AM</p> <p>12 of the phases that I mentioned earlier. 11:10AM</p> <p>13 Q So the first phase of the three phases you 11:10AM</p> <p>14 mentioned earlier was the discovery aspect, as you 11:10AM</p> <p>15 called it, of implementing LLDP; correct? 11:10AM</p> <p>16 A Yes. 11:10AM</p> <p>17 Q So the first stage of implementing Phase 1 -- 11:10AM</p> <p>18 strike that. 11:10AM</p> <p>19 So when I say "Phase 1 of the LLDP project," do 11:10AM</p> <p>20 you understand that I'm referring to the discovery 11:11AM</p> <p>21 aspect of that project? 11:11AM</p> <p>22 A I do. 11:11AM</p> <p>23 Q Now, for Phase 1 of the LLDP project, did the 11:11AM</p> <p>24 list of stages you just described apply to that phase? 11:11AM</p> <p>25 A Yes. 11:11AM</p> <p style="text-align: right;">Page 70</p>	<p>1 exchange information with and exchange ideas with, and 11:12AM</p> <p>2 so as part of that, I worked with pro- -- product 11:12AM</p> <p>3 managers, and I did my own research to see who else is 11:12AM</p> <p>4 active -- actively working on this technology and what 11:12AM</p> <p>5 platforms they are targeting, what markets they are 11:12AM</p> <p>6 going after, etc., and what -- ultimately, what our 11:13AM</p> <p>7 requirements for Phase 1 are. 11:13AM</p> <p>8 Q You mentioned, as some of the vendors that you 11:13AM</p> <p>9 looked at, the HP ProCurve; is that right? 11:13AM</p> <p>10 A That's right. 11:13AM</p> <p>11 Q You also mentioned Nortel? 11:13AM</p> <p>12 A Yes. 11:13AM</p> <p>13 Q What equipment of Nortel's did you look at as 11:13AM</p> <p>14 part of this market analysis stage for Phase 1? 11:13AM</p> <p>15 A I looked at their ability to -- I was sort of 11:13AM</p> <p>16 thinking ahead in that I looked at their platforms that 11:13AM</p> <p>17 support the endpoints, such as desk -- desk phones, and 11:14AM</p> <p>18 see how -- see what Nortel does to discover desk phones 11:14AM</p> <p>19 and service them. 11:14AM</p> <p>20 I looked at -- so that -- and later on, of 11:14AM</p> <p>21 course, in Phase 3, I was looking at exactly what Nortel 11:14AM</p> <p>22 is doing to support locations. 11:14AM</p> <p>23 Q So let's just stick with what you did for 11:14AM</p> <p>24 Phase 1. 11:14AM</p> <p>25 A Yes. Yes. 11:14AM</p> <p style="text-align: right;">Page 72</p>
<p>1 Q So the market analysis and requirements phase 11:11AM</p> <p>2 is -- strike that. 11:11AM</p> <p>3 So the market analysis and requirement stage is 11:11AM</p> <p>4 the first stage in the multistage process for Phase 1 of 11:11AM</p> <p>5 the LLDP project? 11:11AM</p> <p>6 A That's correct. 11:11AM</p> <p>7 Q Is there anything that precedes the market 11:11AM</p> <p>8 analysis portion -- strike that. 11:11AM</p> <p>9 Is there anything that precedes the market 11:11AM</p> <p>10 analysis stage as part of this multistage process you 11:11AM</p> <p>11 described? 11:11AM</p> <p>12 A No. 11:11AM</p> <p>13 Q So the first thing you did when you were working 11:11AM</p> <p>14 on Phase 1 of the LLDP project was to perform a market 11:11AM</p> <p>15 analysis to see what other vendors were doing; is that 11:11AM</p> <p>16 correct? 11:11AM</p> <p>17 MR. CANNON: Objection; vague, mischaracterizes 11:11AM</p> <p>18 the witness's prior testimony. 11:12AM</p> <p>19 THE WITNESS: No. No. It -- it -- that's not 11:12AM</p> <p>20 accurate. 11:12AM</p> <p>21 BY MR. WONG: 11:12AM</p> <p>22 Q What is inaccurate about what I just asked you? 11:12AM</p> <p>23 A I didn't do it as a requirement. I did it as 11:12AM</p> <p>24 aside effect in the sense that this whole protocol was 11:12AM</p> <p>25 very -- was brand new and I needed someone to -- to 11:12AM</p> <p style="text-align: right;">Page 71</p>	<p>1 Q Did you do anything else with respect to Nortel 11:14AM</p> <p>2 equipment with respect to the market analysis portion of 11:14AM</p> <p>3 Phase 1? 11:14AM</p> <p>4 A I read -- I might have read some white papers to 11:14AM</p> <p>5 see, you know, how -- how endpoint-to-infrastructure 11:14AM</p> <p>6 discovery happens in a -- in a typical Nortel 11:14AM</p> <p>7 deployment, but that's about all for Phase 1. 11:14AM</p> <p>8 Q And why were you looking at that aspect of 11:14AM</p> <p>9 Nortel's business in connection with Phase 1 of the LLDP 11:15AM</p> <p>10 project. 11:15AM</p> <p>11 A Primarily to understand the market landscape, to 11:15AM</p> <p>12 see who -- who is -- who is doing this and how they are 11:15AM</p> <p>13 doing it now and what -- what they have planned for this 11:15AM</p> <p>14 new technology coming in in the form of LLDP and how we 11:15AM</p> <p>15 are going at it, just an understanding of that. 11:15AM</p> <p>16 Q And you did a similar analysis for the HP 11:15AM</p> <p>17 ProCurve; is that correct? 11:15AM</p> <p>18 A No. 11:15AM</p> <p>19 Q What did you do for the HP ProCurve -- actually, 11:15AM</p> <p>20 strike. Let me re-ask -- let me rephrase the question. 11:15AM</p> <p>21 What did you look at as part of the market 11:15AM</p> <p>22 analysis stage of Phase 1 when you were looking at the 11:15AM</p> <p>23 HP ProCurve? 11:15AM</p> <p>24 A My interaction with the HP ProCurve was, of 11:16AM</p> <p>25 course, to -- to read about their product, what feature 11:16AM</p> <p style="text-align: right;">Page 73</p>

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<p>1 sets they have on that particular product, and I recall 11:16AM</p> <p>2 that my interaction with HP ProCurve was more technical 11:16AM</p> <p>3 in the sense that I actively exchanged LLDP concept -- 11:16AM</p> <p>4 concepts with people representing HP ProCurve in -- in 11:16AM</p> <p>5 the standards in -- in the -- in the IETF standards. 11:16AM</p> <p>6 Q What LLDP concepts did you discuss with your 11:16AM</p> <p>7 contact at HP during the market analysis stage of 11:16AM</p> <p>8 Phase 1? 11:16AM</p> <p>9 A During the market analysis, not -- not -- nothing 11:16AM</p> <p>10 significant with HP ProCurve, I would say. 11:16AM</p> <p>11 Q How about just during any stages of Phase 1; what 11:17AM</p> <p>12 type of LLDP concepts did you discuss with your 11:17AM</p> <p>13 colleagues at HP ProCurve? 11:17AM</p> <p>14 A I recall having discussed some of the topics in 11:17AM</p> <p>15 the standard that were not immediately clear, and I 11:17AM</p> <p>16 discussed the language in there to be certain that it 11:17AM</p> <p>17 means a -- means a certain entity in our implementation 11:17AM</p> <p>18 and how it maps to in their implementation, etc. 11:17AM</p> <p>19 Q Were these conver- -- strike that. 11:17AM</p> <p>20 Were these communications by phone? 11:17AM</p> <p>21 A Mainly through e-mail. 11:17AM</p> <p>22 Q And were you using your Cisco e-mail account for 11:17AM</p> <p>23 those communications? 11:17AM</p> <p>24 A Yes. 11:17AM</p> <p>25 Q You don't have any copies of those e-mail 11:18AM</p> <p style="text-align: right;">Page 74</p>	<p>1 Q And this is specific to Phase 1 of the LLDP 11:19AM</p> <p>2 project? 11:19AM</p> <p>3 MR. CANNON: Same objection. 11:19AM</p> <p>4 THE WITNESS: Yes. I recall discussing how 11:19AM</p> <p>5 sub-interfaces are handled. I recall that for sure. I 11:19AM</p> <p>6 also recall several other discussions about some of the 11:19AM</p> <p>7 fields in the TLV data that we send in LLDP. 11:20AM</p> <p>8 BY MR. WONG: 11:20AM</p> <p>9 Q What is TLV? 11:20AM</p> <p>10 A It's an acronym for type, length, and value. 11:20AM</p> <p>11 Q Did you come up with that acronym? 11:20AM</p> <p>12 A No. 11:20AM</p> <p>13 Q Do you know who came up with that acronym? 11:20AM</p> <p>14 A It is widely used in the standard. 11:20AM</p> <p>15 Q When you say "widely used in the standard," are 11:20AM</p> <p>16 you referring to the LLDP standard? 11:20AM</p> <p>17 A That's correct. 11:20AM</p> <p>18 Q Did you also speak with -- strike that. 11:20AM</p> <p>19 What type of market analysis did you do with 11:20AM</p> <p>20 respect to Ericsson in Phase 1 of the LLDP project? 11:20AM</p> <p>21 A Not much. I must have -- I was -- I was under 11:20AM</p> <p>22 time pressure to finish Phase 1 on -- in -- in a timely 11:21AM</p> <p>23 manner, and, basically, I was looking at other people 11:21AM</p> <p>24 actively involved in -- in actual development of this 11:21AM</p> <p>25 product. And as a side effect of that, I was reading 11:21AM</p> <p style="text-align: right;">Page 76</p>
<p>1 communications that you might have had with HP ProCurve, 11:18AM</p> <p>2 do you? 11:18AM</p> <p>3 A No. No. 11:18AM</p> <p>4 Q You mentioned that you were discussing with HP 11:18AM</p> <p>5 ProCurve topics relating to IETF standards? 11:18AM</p> <p>6 A The LLDP standard. 11:18AM</p> <p>7 Q Is the IETF the standard-setting body for LLDP? 11:18AM</p> <p>8 A I've not been in touch with LLDP for a few years 11:18AM</p> <p>9 now, but my recollection is LLDP originated -- I don't 11:18AM</p> <p>10 know whether it's LLDP or LLDP-MED -- outside of IETF 11:18AM</p> <p>11 first, and then two organizations have to -- have to 11:18AM</p> <p>12 come together to actually ratify the standard, but I 11:18AM</p> <p>13 know that IETF had a big -- IEEE -- IEEE and IETF had a 11:18AM</p> <p>14 big role in it. 11:19AM</p> <p>15 Q Did you discuss any implementation-related issues 11:19AM</p> <p>16 with the colleagues at HP ProCurve with respect to 11:19AM</p> <p>17 Phase 1 of the LLDP project? 11:19AM</p> <p>18 MR. CANNON: Objection; vague, asked and 11:19AM</p> <p>19 answered. 11:19AM</p> <p>20 THE WITNESS: Yes. 11:19AM</p> <p>21 BY MR. WONG: 11:19AM</p> <p>22 Q What aspects of the actual implementation of LLDP 11:19AM</p> <p>23 did you discuss with the HP ProCurve engineers? 11:19AM</p> <p>24 MR. CANNON: Objection; vague. 11:19AM</p> <p>25 BY MR. WONG: 11:19AM</p> <p style="text-align: right;">Page 75</p>	<p>1 white papers as fast as I could to see what other 11:21AM</p> <p>2 network vendors are involved in this area; discovery 11:21AM</p> <p>3 area, servicing, endpoint, etc., in general, and I must 11:21AM</p> <p>4 have done some research on Ericsson as well. 11:21AM</p> <p>5 Q Okay. So you didn't speak to anybody at Ericsson 11:21AM</p> <p>6 who was working on LLDP? 11:21AM</p> <p>7 A No. 11:21AM</p> <p>8 Q What about Juniper; what was your -- strike that. 11:21AM</p> <p>9 What type of market analysis did you do for 11:21AM</p> <p>10 Phase 1 of the LLDP project with respect to Juniper? 11:21AM</p> <p>11 A None. 11:21AM</p> <p>12 Q Okay. Aside from HP ProCurve, Nortel, and 11:21AM</p> <p>13 Ericsson, were there any other third-party vendors that 11:22AM</p> <p>14 you investigated as part of the market analysis stage of 11:22AM</p> <p>15 Phase 1 of the LLDP project? 11:22AM</p> <p>16 A Yes. 11:22AM</p> <p>17 Q What are those other vendors? 11:22AM</p> <p>18 A Mitel, Avaya, Polycom. 11:22AM</p> <p>19 Q Any other vendors? 11:22AM</p> <p>20 A Yes, but I can't recall their names at this time. 11:22AM</p> <p>21 Q You mentioned that you actively communicated with 11:22AM</p> <p>22 somebody from HP ProCurve; correct? 11:22AM</p> <p>23 A Yes. 11:22AM</p> <p>24 Q Were there any other people that you actively 11:22AM</p> <p>25 communicated with while working on Phase 1 of the LLDP 11:22AM</p> <p style="text-align: right;">Page 77</p>

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1 project at Cisco? 11:22AM	1 progression of development, and being able to abstract 11:26AM
2 MR. CANNON: Objection; vague. 11:22AM	2 the current implementation to allow for that is what I 11:26AM
3 THE WITNESS: Yes. 11:22AM	3 mean by "extensibility." 11:26AM
4 BY MR. WONG: 11:22AM	4 Q So when you were discussing the LLDP project -- 11:26AM
5 Q Who else were you working with when you were 11:22AM	5 Phase 1 one of the LLDP project with your colleagues at 11:26AM
6 working on Phase 1 of the LLDP project at Cisco? 11:23AM	6 HP, did you talk about what you were planning to do for 11:26AM
7 A You mean external to Cisco? 11:23AM	7 Cisco's implementation? 11:26AM
8 Q External to Cisco, yes. 11:23AM	8 MR. CANNON: Objection; vague. 11:26AM
9 A I must have sent some e-mails clarifying some of 11:23AM	9 THE WITNESS: No. 11:26AM
10 the language in the standard, and I don't recall the 11:23AM	10 BY MR. WONG: 11:26AM
11 actual people that responded to me from the standards 11:23AM	11 Q Okay. Did your colleague tell you what HP was 11:26AM
12 e-mail areas, but I would say a few e-mails with people 11:23AM	12 planning to do for HP's implementation? 11:26AM
13 other than HP ProCurve that were part of the standards 11:23AM	13 MR. CANNON: Objection; vague. 11:26AM
14 body, and, of course, HP ProCurve people were also in 11:23AM	14 THE WITNESS: No. 11:26AM
15 the standards body. 11:23AM	15 BY MR. WONG: 11:27AM
16 Q And when you are referring to "the standards," 11:23AM	16 Q Which of those vendors that we just discussed 11:27AM
17 are you referring to the IEEE? 11:23AM	17 were also in the process of implementing LLDP in their 11:27AM
18 A Yes. 11:23AM	18 products? 11:27AM
19 Q Are you an IEEE member, Mr. Patil? 11:23AM	19 A I know for sure that HP ProCurve was. I -- I 11:27AM
20 A I am, but I'm not very active. 11:23AM	20 think Nortel was too, but I was not 100 percent sure. 11:27AM
21 Q How long have you been a member of the IEEE? 11:23AM	21 MR. WONG: Why don't we take a quick break. 11:27AM
22 A I don't know whether my membership has actually 11:24AM	22 THE WITNESS: Okay. 11:27AM
23 expired, but I started very early in the '90s. 11:24AM	23 THE VIDEOGRAPHER: We are going off the record at 11:27AM
24 Q And were you involved in the standard-setting 11:24AM	24 11:27 a.m. 11:27AM
25 process for LLDP? 11:24AM	25 (Recess taken.) 11:27AM
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1 A No. 11:24AM	1 THE VIDEOGRAPHER: We are back on the record at 11:33AM
2 Q Why was it important for you to find other people 11:24AM	2 11:33 a.m. 11:33AM
3 to talk to while you were working on Phase 1 of the LLDP 11:24AM	3 BY MR. WONG: 11:33AM
4 project? 11:24AM	4 Q Before the break, Mr. Patil, we were discussing 11:33AM
5 A To make the right architectural and design 11:24AM	5 the various stages that are involved in implementing the 11:33AM
6 decisions so that we don't have to tear down a lot of 11:24AM	6 LLDP project at Cisco. 11:34AM
7 stuff later, post-implementation, post-testing, and 11:24AM	7 A Mm-hmm. 11:34AM
8 that's the, I would say, cautious approach for a project 11:24AM	8 Q We were talking specifically about Phase 1. 11:34AM
9 of this size. 11:24AM	9 A Yes. 11:34AM
10 Q How does talking with other vendors outside of 11:24AM	10 Q During what phase -- strike that. 11:34AM
11 Cisco help you to make the right architectural and 11:24AM	11 During what stage of the stages that you 11:34AM
12 design decisions with respect to Cisco's LLDP 11:25AM	12 described are the syntaxes for the commands created? 11:34AM
13 implementation? 11:25AM	13 MR. CANNON: Objection; vague. 11:34AM
14 A It gives us an understanding of how this can be 11:25AM	14 THE WITNESS: Both Phase 1 and Phase 2. 11:34AM
15 done in phases. It helps us avoid costly architectural 11:25AM	15 BY MR. WONG: 11:34AM
16 and design mistakes so that we abstract the initial 11:25AM	16 Q I'm sorry, my question was: During which of the 11:34AM
17 implementation for extensibility, and it also helps us 11:25AM	17 stages that you listed out for me are the syntaxes for 11:34AM
18 plan for things coming down the pipeline, such as 11:25AM	18 the commands, and specifically the LLDP commands, 11:34AM
19 Phase 2 or even Phase 3 when it comes to a map and 11:25AM	19 created? 11:34AM
20 locations. 11:25AM	20 MR. CANNON: Objection; vague. 11:34AM
21 Q What do you mean by "extensibility"? 11:25AM	21 THE WITNESS: In the design specification for the 11:34AM
22 A The ability to support value-added features to 11:25AM	22 phase. 11:34AM
23 target certain markets. An example is something like 11:26AM	23 BY MR. WONG: 11:34AM
24 inline power provisioning on endpoints through LLDP. 11:26AM	24 Q And just so it's clear to me, the first stage 11:34AM
25 Knowing that it's coming in the roadmap, in the 11:26AM	25 that you described was the market analysis and 11:35AM
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1 requirement stage; correct? 11:35AM	1 Routing Information Base that I talked about earlier -- 11:37AM
2 A Correct. 11:35AM	2 or mentioned. 11:37AM
3 Q And the second stage that you described was an 11:35AM	3 Q How -- focusing specifically on Phase 1 of the 11:37AM
4 architectural stage; is that right? 11:35AM	4 LLDP project, how was that a key architectural decision? 11:37AM
5 A That's correct. 11:35AM	5 MR. CANNON: Objection; vague. 11:37AM
6 Q And the third stage is the design stage? 11:35AM	6 BY MR. WONG: 11:37AM
7 A Yes. 11:35AM	7 Q I'm using your own words here in your resume, 11:37AM
8 Q So it's the third stage where the command syntax 11:35AM	8 Mr. Patil. 11:38AM
9 for the LLDP commands, talking specifically with respect 11:35AM	9 How was that -- how was Phase 1 of the LLDP 11:38AM
10 to Phase 1, were created; correct? 11:35AM	10 project a key architectural decision for Cisco products? 11:38AM
11 A That's correct. 11:35AM	11 MR. CANNON: Objection; vague, mischaracterizes 11:38AM
12 MR. CANNON: Objection; vague. 11:35AM	12 testimony. 11:38AM
13 BY MR. WONG: 11:35AM	13 THE WITNESS: From an architectural perspective, 11:38AM
14 Q Was there any discussion with any of the third 11:35AM	14 it was -- it had to do with how to co-exist with 11:38AM
15 parties that we just discussed about the commands that 11:35AM	15 existing protocols and features on Cisco platforms. 11:38AM
16 would be used for LLDP? 11:35AM	16 BY MR. WONG: 11:38AM
17 MR. CANNON: Objection; vague. 11:35AM	17 Q And what did you do with respect to Phase 1 of 11:38AM
18 THE WITNESS: No. 11:35AM	18 the LLDP project to ensure that it co-existed with 11:38AM
19 BY MR. WONG: 11:35AM	19 existing protocols and features on Cisco platforms? 11:38AM
20 Q Was there any discussion with any of the third 11:35AM	20 A From an architectural standpoint, kept the LLDP 11:38AM
21 parties that we just discussed about the interface -- 11:35AM	21 database insulated and separate and disjoined from other 11:38AM
22 command-line interface in general that would be used for 11:35AM	22 discovery protocols. 11:39AM
23 LLDP? 11:36AM	23 And from a protocol standpoint, made sure that 11:39AM
24 A No. 11:36AM	24 there is no relationship or collaboration between 11:39AM
25 Q Looking back at Exhibit 313 under the description 11:36AM	25 discovery protocols and they just function 11:39AM
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1 under "Cisco Systems." 11:36AM	1 independently. 11:39AM
2 A Yeah. 11:36AM	2 Q Before the break, you testified about 11:39AM
3 Q It says, "... lead design and development of 11:36AM	3 conversations that you had with someone at HP ProCurve 11:39AM
4 software modules of Cisco IOS." 11:36AM	4 regarding LLDP. 11:39AM
5 Do you see that? 11:36AM	5 A Yes. 11:39AM
6 A Yes. 11:36AM	6 Q Do you remember that? 11:39AM
7 Q What software modules of Cisco IOS are you 11:36AM	7 A Yes. 11:39AM
8 referring to there? 11:36AM	8 Q Who was the person or persons that you spoke with 11:39AM
9 A In terms of actual leadership for those modules, 11:36AM	9 at HP ProCurve regarding Phase 1 of the LLDP project? 11:40AM
10 I led the Phase 1 for LLDP, Phase 2 of LLDP. I also led 11:36AM	10 A I do not recall their name, but I do remember 11:40AM
11 another project which was completely unrelated. 11:36AM	11 that he was a highly knowledgeable person at HP ProCurve 11:40AM
12 Q And what was that project about? 11:36AM	12 who was responsible for product development, as well as 11:40AM
13 A It was a product for developing what is called 11:36AM	13 represent HP ProCurve at IEEE. 11:40AM
14 Multilayer Routing Information Base. 11:37AM	14 Q And how did you come to know of this person at HP 11:40AM
15 Q Further down in Exhibit 313, in that same 11:37AM	15 ProCurve? 11:40AM
16 paragraph, it says, "Made key architectural decisions 11:37AM	16 A I don't recall the actual event that made me 11:40AM
17 for products, resulting in successful deliveries for 11:37AM	17 aware of this person, but it might have been through 11:40AM
18 several multi-billion dollar market segments." 11:37AM	18 some keyword search that eventually led to their contact 11:40AM
19 Do you see that? 11:37AM	19 information. 11:40AM
20 A Mm-hmm. 11:37AM	20 Q When you say "keyword search," what type of 11:40AM
21 Q What are you talking about there? 11:37AM	21 search are you referring to? 11:41AM
22 A I'm talking primarily about Phase 1 of LLDP and 11:37AM	22 A A search on LLDP feature set of our -- the 11:41AM
23 Phase 2 of LLDP and even, to some extent, MLRIB. 11:37AM	23 mechanics of it at a -- at a level deeper than what one 11:41AM
24 Q What was that last acronym you said? 11:37AM	24 would search for discovery protocols in general. So 11:41AM
25 A "MLRIB," which stood for the Multilayer Layer 11:37AM	25 something that's technical and involved from an 11:41AM
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1 buildings. 12:14PM	1 Data Networking Market." 12:17PM
2 Q And what you just described as being 12:14PM	2 Q And is this the same thesis that we were 12:17PM
3 non-monolithic, is -- is that the basis for you saying 12:14PM	3 discussing earlier in this deposition? 12:17PM
4 that EOS is very resilient and highly available and 12:14PM	4 A That's correct. 12:17PM
5 performs at an impressive metrics level? 12:14PM	5 Q Okay. And this thesis marked Exhibit 314 took 12:17PM
6 A Yeah. 12:14PM	6 approximately six months for you to prepare; is that 12:17PM
7 MR. CANNON: Objection; vague, calls for improper 12:14PM	7 correct? 12:17PM
8 opinion testimony, lacks foundation. 12:14PM	8 A Roughly, yes. 12:17PM
9 THE WITNESS: My personal opinion is yes. 12:14PM	9 Q Okay. If you turn to page 17 of Exhibit 314, let 12:17PM
10 BY MR. WONG: 12:14PM	10 me know when you are there. 12:17PM
11 Q And that's based upon your personal review of 12:14PM	11 A Yes. 12:17PM
12 materials that describe how the Arista EOS product 12:14PM	12 Q There's a section called "Cloud Networking." 12:17PM
13 works; correct? 12:15PM	13 Do you see that? 12:17PM
14 MR. CANNON: Objection; vague, mischaracterizes 12:15PM	14 A Yes. 12:17PM
15 testimony. 12:15PM	15 Q What was this section of your thesis about? 12:17PM
16 THE WITNESS: I haven't researched EOS at a level 12:15PM	16 A This initial -- well, the heart of the thesis is, 12:17PM
17 deeper than a white paper, and I don't know the 12:15PM	17 essentially, mapping real data to theories and see how 12:17PM
18 internals of it and how they have actually done it, but 12:15PM	18 well it maps. That was the heart of the thesis, in my 12:18PM
19 my understanding was they have built something that is 12:15PM	19 opinion. 12:18PM
20 available and restartable. 12:15PM	20 The initial few sections had to do with just the 12:18PM
21 BY MR. WONG: 12:15PM	21 landscape that we are talking about, get readers who are 12:18PM
22 Q And it's -- uses a non-monolithic design, as you 12:15PM	22 interested in going through this familiar with, you 12:18PM
23 described? 12:15PM	23 know, what it is that we mean when we say "data 12:18PM
24 A Yes. 12:15PM	24 networking market" and where -- what sort of companies 12:18PM
25 // 12:16PM	25 are we looking at, what sort of technologies are we 12:18PM
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1 (Exhibit 314 was marked for 12:16PM	1 looking at, so the initial sections suggest -- they are 12:18PM
2 identification by the Court Reporter.) 12:16PM	2 not so original, in my opinion, but they are more of 12:18PM
3 MR. WONG: The Court Reporter has marked as 12:16PM	3 groundwork. 12:18PM
4 Exhibit 314 -- 12:16PM	4 Q And you did your own investigation to support the 12:18PM
5 MR. CANNON: Counsel, before we go too far with 12:16PM	5 statements that you made in these initial sections; 12:18PM
6 this document, was it produced in discovery? 12:16PM	6 correct? 12:18PM
7 MR. WONG: No. This is available publicly. 12:16PM	7 MR. CANNON: Objection; vague. 12:18PM
8 MR. CANNON: We are going to have a standing 12:16PM	8 THE WITNESS: No. The initial sections were 12:18PM
9 objection to any questions about this document, given it 12:16PM	9 purely -- first of all, they are unoriginal, and they 12:18PM
10 was not produced in the case. 12:16PM	10 are existing information that I can take from anywhere 12:19PM
11 MR. WONG: Okay. As long as that objection also 12:16PM	11 else, and they are just informative. That's -- that's 12:19PM
12 applies to questions relating to the Huawei settlement 12:16PM	12 about all I can -- 12:19PM
13 agreement, which was not produced and used in several 12:16PM	13 BY MR. WONG: 12:19PM
14 depositions of Arista witnesses, but I hear your 12:16PM	14 Q Sure, and I understand you are saying they are 12:19PM
15 objection, Counsel. 12:16PM	15 just informative. 12:19PM
16 BY MR. WONG: 12:16PM	16 But where -- where did the information come from? 12:19PM
17 Q Mr. Patil, do you recognize the document marked 12:16PM	17 A From my own research. 12:19PM
18 as Exhibit 314? 12:16PM	18 Q Okay. So the information in these -- in every 12:19PM
19 A Yes, I do. 12:16PM	19 section of your thesis came from your own research; 12:19PM
20 Q What is the document marked as Exhibit 314? 12:16PM	20 correct? 12:19PM
21 A Well, it's the -- it's the thesis that I 12:16PM	21 MR. CANNON: Objection; vague -- 12:19PM
22 presented for my master's degree. 12:16PM	22 THE WITNESS: A lot -- 12:19PM
23 Q And what's the title of the thesis marked as 12:16PM	23 MR. CANNON: -- compound. 12:19PM
24 Exhibit 314? 12:16PM	24 THE WITNESS: -- a lot of it, yeah, is entirely 12:19PM
25 A "Business Development Trends and Analysis for the 12:16PM	25 my research. I was, of course, guided by my advisor. 12:19PM
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1 BY MR. WONG: 12:19PM	1 Q Now, you say "attempted." 12:22PM
2 Q Now, at the bottom of page 17 of Exhibit 314 -- 12:19PM	2 Does that mean that it has never been actually 12:22PM
3 A Yeah. 12:19PM	3 successfully implemented? 12:22PM
4 Q Actually, can you please read for me the 12:19PM	4 MR. CANNON: Objection -- 12:22PM
5 paragraph that starts with "Cloud Networking" on -- on 12:19PM	5 BY MR. WONG: 12:22PM
6 the bottom half of page 17? 12:19PM	6 Q What do you mean by "attempted"? 12:22PM
7 A Sure. 12:19PM	7 A It's been -- it's been tried; however, I'm not 12:22PM
8 MR. CANNON: The whole paragraph? 12:20PM	8 clear exactly why it didn't become the mainstream 12:22PM
9 MR. WONG: Yes, please. 12:20PM	9 approach to networking equipment. 12:22PM
10 THE WITNESS: "To meet... networking demands of 12:20PM	10 Q But you agree with your own statement here in 12:22PM
11 cloud computing, including features such as Saas and 12:20PM	11 your thesis on page 17 that Arista Networks's EOS is an 12:22PM
12 Paas, the network needs to be scalable and should 12:20PM	12 example of innovation in this area; correct? 12:22PM
13 provide low latency at high resiliency. The creation of 12:20PM	13 MR. CANNON: Objection; lacks foundation and 12:22PM
14 such... high performance underlying network constitutes 12:20PM	14 calls for improper opinion testimony. 12:22PM
15 cloud networking. In addition to the general network 12:20PM	15 THE WITNESS: That is correct. 12:22PM
16 attributes mentioned above, the network needs to... 12:20PM	16 BY MR. WONG: 12:22PM
17 provide predictable performance and extensible 12:20PM	17 Q Okay. And you also agree with your own statement 12:22PM
18 management. In order to deliver such performance, some 12:20PM	18 here in your graduate thesis, on page 17 of Exhibit 314, 12:22PM
19 companies are looking at new approaches in design and 12:20PM	19 that Arista EOS architecture is based on a new paradigm 12:22PM
20 architecture. Arista Networks' Extensible Operating 12:20PM	20 where the state and the process are maintained 12:23PM
21 System (EOS) is an example of innovation in this area. 12:20PM	21 separately; correct? 12:23PM
22 Arista EOS architecture is based on a new paradigm where 12:20PM	22 MR. CANNON: Objection; lacks foundation, calls 12:23PM
23 the state" -- "the state and the process are maintained 12:20PM	23 for improper opinion testimony. 12:23PM
24 separately." 12:20PM	24 THE WITNESS: Yes. 12:23PM
25 MR. WONG: Let me stop you there, Mr. Patil. 12:20PM	25 BY MR. WONG: 12:23PM
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1 Q And you wrote this portion of your thesis; 12:20PM	1 Q And by this point, Mr. Patil, you had been 12:23PM
2 correct? 12:20PM	2 working at Cisco for over a decade; correct? 12:23PM
3 A Yes. 12:20PM	3 A Yes. 12:23PM
4 Q And this was based upon your research; correct? 12:20PM	4 Q So you were familiar with the design and 12:23PM
5 A Yes. 12:21PM	5 architecture of Cisco's own software; correct? 12:23PM
6 Q And you believed what you wrote when you wrote 12:21PM	6 MR. CANNON: Objection; vague. 12:23PM
7 this thesis; correct? You believe what you wrote was 12:21PM	7 THE WITNESS: Yes. 12:23PM
8 true when you wrote your thesis; correct? 12:21PM	8 BY MR. WONG: 12:23PM
9 MR. CANNON: Objection; calls for improper 12:21PM	9 Q And in view of your decades' long experience with 12:23PM
10 opinion testimony. 12:21PM	10 the design and architecture of Cisco software, it was 12:23PM
11 THE WITNESS: Yes and -- yes. 12:21PM	11 your belief, as stated in your thesis here marked as 12:23PM
12 BY MR. WONG: 12:21PM	12 Exhibit 314, that Arista's EOS architecture was based on 12:23PM
13 Q So it's your belief that Arista Networks' 12:21PM	13 a new paradigm; correct? 12:23PM
14 extensible operating system, or EOS, is a new approach 12:21PM	14 MR. CANNON: Objection; vague, lacks foundation, 12:23PM
15 in design and architecture; correct? 12:21PM	15 calls for improper opinion testimony. 12:23PM
16 MR. CANNON: Objection; lacks foundation, calls 12:21PM	16 THE WITNESS: Yes. 12:23PM
17 for improper opinion testimony. 12:21PM	17 BY MR. WONG: 12:23PM
18 THE WITNESS: No. 12:21PM	18 Q And based upon your decades' long experience at 12:24PM
19 BY MR. WONG: 12:21PM	19 the time you wrote the thesis marked as Exhibit 314, you 12:24PM
20 Q Well, are you disagreeing with your own thesis, 12:21PM	20 believed that Arista Networks's EOS system was an 12:24PM
21 Mr. Patil? 12:21PM	21 example of innovation in this area; correct? 12:24PM
22 A No, I'm not disagreeing with my own thesis. I -- 12:21PM	22 MR. CANNON: Objection; vague, mischaracterizes 12:24PM
23 I am only saying that it is -- it is a new approach; 12:21PM	23 prior testimony, lacks foundation, calls for improper 12:24PM
24 however, this approach has been attempted even prior to 12:21PM	24 opinion testimony. 12:24PM
25 Arista. 12:21PM	25 THE WITNESS: Example, yes. 12:24PM
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1 MR. WONG: Right. 12:24PM	1 activity for LLDP was -- was happening, and it -- I 12:28PM
2 Q The Arista Networks's EOS was an example of 12:24PM	2 recall that it was -- it was slow for a period of time 12:28PM
3 innovation in this area; correct? 12:24PM	3 in between and then it took off again. 12:28PM
4 MR. CANNON: Objection; vague -- 12:24PM	4 BY MR. WONG: 12:28PM
5 THE WITNESS: Example, yes. 12:24PM	5 Q And you didn't participate in any of the efforts 12:28PM
6 MR. CANNON: -- mischaracterizes prior testimony, 12:24PM	6 to standardize LLDP from the '90s to 2004; is that 12:28PM
7 lacks foundation, calls for improper opinion testimony. 12:24PM	7 right? 12:28PM
8 BY MR. WONG: 12:24PM	8 A No. No. 12:28PM
9 Q And these are -- these are your words here on 12:24PM	9 Q And you played no role whatsoever in the creation 12:28PM
10 page 17 of Exhibit 314; correct, Mr. Patil? 12:24PM	10 of the LLDP standard; correct? 12:28PM
11 A These are my words, yes. 12:24PM	11 A No. 12:28PM
12 Q And you believed them to be true when you wrote 12:24PM	12 Q And how did you first learn about LLDP? 12:28PM
13 your thesis marked as Exhibit 314; correct? 12:24PM	13 A When I was tasked to lead that project at Cisco. 12:28PM
14 MR. CANNON: Objection; calls for improper 12:24PM	14 Q Who tasked you to lead that project at Cisco? 12:29PM
15 opinion testimony, lacks foundation. 12:24PM	15 A My director. 12:29PM
16 THE WITNESS: These are my words. These are my 12:24PM	16 Q Who was your director? 12:29PM
17 opinions. 12:25PM	17 A Purnam Sheth. 12:29PM
18 MR. WONG: Yeah. 12:25PM	18 Q Can you spell that, please. 12:29PM
19 Q Can you please provide me with a general 12:25PM	19 A S-h-e-t-h is the last name, and first name is 12:29PM
20 description of what "LLDP" is? 12:25PM	20 P-u-r-n-a-m. 12:29PM
21 A Yes. Yes, I can. 12:25PM	21 Q And how did you learn about the LLDP standard, 12:29PM
22 Q What -- what is "LLDP"? 12:25PM	22 the -- the way it worked? 12:29PM
23 A "LLDP" stands for Link Layer Discovery Protocol, 12:25PM	23 A I -- upon being tasked with this -- with this 12:29PM
24 and it is a -- at a high-level, it's a standardized way 12:25PM	24 project, to lead this project, I did some initial 12:29PM
25 for devices to discover each other and know of each 12:25PM	25 research and it was very aggressive project at that 12:29PM
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1 other. 12:25PM	1 point, and so I -- yeah, I researched it actively and 12:29PM
2 Q When you say it's a "standardized way for devices 12:25PM	2 wanted to know as much of it as possible as early as 12:29PM
3 to discover each other and know of each other," what do 12:26PM	3 possible. 12:29PM
4 you mean by a "standardized way"? 12:26PM	4 Q When were you tasked with the LLDP project? 12:29PM
5 A "Standardized" in the sense that it's a industry 12:26PM	5 A Late 2005. 12:30PM
6 standardized agreement and -- and ratified agreement on 12:26PM	6 Q And what documents, if any, did you review to 12:30PM
7 how a discovery can happen in a standardized way, and 12:26PM	7 learn about the LLDP standard? 12:30PM
8 it's meant in contrast with how proprietary discovery 12:26PM	8 A I recall reviewing the very first version of the 12:30PM
9 mechanisms can happen. 12:26PM	9 RFC that they put out that was still not ratified, but 12:30PM
10 Q When you say it's a "ratified agreement," what do 12:26PM	10 there was an RFC and that -- that got me into it, yeah. 12:30PM
11 you mean by "ratified"? 12:26PM	11 Q Did you review the IEEE standard that related to 12:30PM
12 A "Ratified" means something that has been -- 12:26PM	12 LLDP? 12:30PM
13 something that has withstood the test of time and has 12:26PM	13 A Yes. 12:30PM
14 been reviewed by several experts in the industry who -- 12:27PM	14 MR. WONG: Let's mark this as 315, please. 12:30PM
15 who have the ability to see that -- not just from a 12:27PM	15 (Exhibit 315 was marked for 12:31PM
16 feature perspective but also from a holistic perspective 12:27PM	16 identification by the Court Reporter.) 12:31PM
17 to see if it was actually viable -- viable to do that, 12:27PM	17 MR. WONG: The Reporter has marked, as 12:31PM
18 and then they collectively meet and discuss their 12:27PM	18 Exhibit 315, document bearing control numbers 12:31PM
19 concerns and refine the standard appropriately and then 12:27PM	19 ARISTANDCA00017907 to 18078. 12:31PM
20 agree on a version that is -- that can be considered 12:27PM	20 Q Mr. Patil, do you recognize the document marked 12:31PM
21 standard. 12:27PM	21 as Exhibit 315? 12:31PM
22 Q Do you know when LLDP was standardized? 12:27PM	22 A I do. 12:31PM
23 MR. CANNON: Objection; vague. 12:27PM	23 Q And what is the document marked as Exhibit 315? 12:31PM
24 THE WITNESS: The initial attempt, I think, from 12:27PM	24 A This is the 802.1AB, which is the technical name 12:31PM
25 late '90s to early -- to 2004 is when the standards 12:28PM	25 for LLDP, and it's an IEEE standard that represents the 12:31PM
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<p>1 initial version of LLDP. 12:31PM</p> <p>2 Q And when was this IEEE standard approved? 12:31PM</p> <p>3 A I don't recall the exact dates, but sometime in 12:31PM</p> <p>4 2007, is what I think the initial LLDP standard itself 12:32PM</p> <p>5 got approved. 12:32PM</p> <p>6 Q Okay. If you look at page 2 of 802.1AB -- excuse 12:32PM</p> <p>7 me. 12:32PM</p> <p>8 If you look at page 2 of Exhibit 315, there are 12:32PM</p> <p>9 several dates there of -- of approval. 12:32PM</p> <p>10 Do you see that? 12:32PM</p> <p>11 A Page -- 12:32PM</p> <p>12 Q I'm sorry, it's the second page of the actual 12:32PM</p> <p>13 exhibit, not -- not the numbered page 2. 12:32PM</p> <p>14 A Yeah, so second page here, copyrights -- I'm 12:32PM</p> <p>15 looking at the physical second page. 12:32PM</p> <p>16 Q Mm-hmm. 12:32PM</p> <p>17 A Is that what you mean? 12:32PM</p> <p>18 Q That's correct. 12:32PM</p> <p>19 A This is page 1 and this is page 2. 12:33PM</p> <p>20 Q That's right. 12:33PM</p> <p>21 A So approved 28 June 2005 and approved March 2005, 12:33PM</p> <p>22 yes. 12:33PM</p> <p>23 Q So does that match your recollection of when the 12:33PM</p> <p>24 LLDP standard was approved? 12:33PM</p> <p>25 A Approved, but not ratified and finalized. 12:33PM</p> <p style="text-align: right;">Page 118</p>	<p>1 implement LLDP, was it just you who was involved in that 12:34PM</p> <p>2 effort? 12:34PM</p> <p>3 A I recall that the first three months were 12:34PM</p> <p>4 extremely aggressive, and I was the only one actually 12:34PM</p> <p>5 taking the lead on it and doing everything -- all the 12:34PM</p> <p>6 stages of it in the -- in the first three -- three 12:34PM</p> <p>7 months, so, yes, in the first three months, but no after 12:35PM</p> <p>8 that. 12:35PM</p> <p>9 Q And after the first three months, who else was 12:35PM</p> <p>10 involved in the LLDP project at Cisco? 12:35PM</p> <p>11 A A lot of the -- there are a lot of testing people 12:35PM</p> <p>12 who were -- who got involved, a lot of people from 12:35PM</p> <p>13 individual business units who wanted to sort of, for 12:35PM</p> <p>14 lack of a better term, acquire this technology for their 12:35PM</p> <p>15 platform. Their engineers wanted to get involved, and 12:35PM</p> <p>16 they there were also people in our own NSSTG that were 12:35PM</p> <p>17 supporting me. 12:35PM</p> <p>18 THE VIDEOGRAPHER: Counsel. 12:35PM</p> <p>19 MR. WONG: Yes? 12:35PM</p> <p>20 Why don't we take a break right now. 12:36PM</p> <p>21 THE VIDEOGRAPHER: We are going off the record at 12:36PM</p> <p>22 12:35 p.m. This is the end of Media 2. 12:36PM</p> <p>23 (Lunch recess taken.) 12:36PM</p> <p>24 ---o0o--- 12:36PM</p> <p>25</p> <p style="text-align: right;">Page 120</p>
<p>1 Q I see. 12:33PM</p> <p>2 What's the difference between the approval of a 12:33PM</p> <p>3 standard and the ratification and finalization of a 12:33PM</p> <p>4 standard? 12:33PM</p> <p>5 MR. CANNON: Objection; vague, lacks foundation. 12:33PM</p> <p>6 THE WITNESS: I have not been in the standards 12:33PM</p> <p>7 bodies actively myself, and my understanding is the 12:33PM</p> <p>8 various phases of it leading up -- leading to the actual 12:33PM</p> <p>9 ratification whereby experts in that area of interest 12:33PM</p> <p>10 agree on a certain standard. 12:33PM</p> <p>11 BY MR. WONG: 12:33PM</p> <p>12 Q And did you review the 802.1AB standard marked as 12:33PM</p> <p>13 Exhibit 315 while you were working on the LLDP 12:34PM</p> <p>14 project -- 12:34PM</p> <p>15 A That's correct -- 12:34PM</p> <p>16 Q -- for Cisco? 12:34PM</p> <p>17 A -- yes. 12:34PM</p> <p>18 Q Did you review the standard, or at least a draft 12:34PM</p> <p>19 of the IEEE LLDP standard, in the course of Phase 1 of 12:34PM</p> <p>20 the LLDP project? 12:34PM</p> <p>21 A That's correct. 12:34PM</p> <p>22 Q Do you recall reviewing the IEEE LLDP standard 12:34PM</p> <p>23 during the 2005 time period? 12:34PM</p> <p>24 A Yes. 12:34PM</p> <p>25 Q When you were tasked by your supervisor to 12:34PM</p> <p style="text-align: right;">Page 119</p>	<p>1 AFTERNOON SESSION 1:03 P.M. 12:36PM</p> <p>2 12:36PM</p> <p>3 (Exhibit 316 was marked for 12:36PM</p> <p>4 identification by the Court Reporter.) 01:03PM</p> <p>5 THE VIDEOGRAPHER: We are on the record at 01:03PM</p> <p>6 1:01 -- 1:03 p.m. This is the beginning of Media 3 in 01:03PM</p> <p>7 the deposition of Devadas Patil. 01:03PM</p> <p>8 BY MR. WONG: 01:03PM</p> <p>9 Q Welcome back from the break, Mr. Patil. 01:03PM</p> <p>10 A Thank you. 01:03PM</p> <p>11 Q The Court Reporter has marked, during the break, 01:04PM</p> <p>12 as Exhibit 316, a document that's been placed in front 01:04PM</p> <p>13 of you. 01:04PM</p> <p>14 Do you see that? 01:04PM</p> <p>15 A Yes. 01:04PM</p> <p>16 Q And I'll represent to you, Mr. Patil, that this 01:04PM</p> <p>17 is a document that was provided to Arista's attorneys by 01:04PM</p> <p>18 Cisco's attorneys, and it lists -- it includes a table 01:04PM</p> <p>19 that has a list of commands on the left-side column. 01:04PM</p> <p>20 Do you see that? 01:04PM</p> <p>21 A Yes. 01:04PM</p> <p>22 Q Please take a moment, Mr. Patil, and look at 01:04PM</p> <p>23 Exhibit 316 and, in particular, the commands that are 01:04PM</p> <p>24 listed on the left-hand side of the table. Let me know 01:04PM</p> <p>25 when you are done. 01:04PM</p> <p style="text-align: right;">Page 121</p>

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<p>1 my reviewers' discussion, a good, I would say -- I mean, 01:16PM</p> <p>2 if you just add up all the time phases, maybe three man 01:16PM</p> <p>3 days to four man days. 01:16PM</p> <p>4 BY MR. WONG: 01:16PM</p> <p>5 Q And when you say "man days," you mean 9:00 to 01:16PM</p> <p>6 5:00? 01:16PM</p> <p>7 A Yes. 01:16PM</p> <p>8 Q Now, you testified, before the break, that you 01:16PM</p> <p>9 had reviewed the IEEE LLDP standard that we marked as 01:17PM</p> <p>10 Exhibit 315 sometime in 2005. 01:17PM</p> <p>11 Do you remember that testimony? 01:17PM</p> <p>12 A Yes. 01:17PM</p> <p>13 Q During what stage of Phase 1 of the LLDP project 01:17PM</p> <p>14 did you review the IEEE LLDP standard? 01:17PM</p> <p>15 A Mainly in the market analysis and architecture 01:17PM</p> <p>16 phases. 01:17PM</p> <p>17 Q So those would be Phases 1 and -- excuse me, 01:17PM</p> <p>18 those would be Stages 1 and 2? 01:17PM</p> <p>19 A Yes. 01:17PM</p> <p>20 Q And did you review the IEEE LLDP standard from 01:17PM</p> <p>21 front to back? 01:17PM</p> <p>22 A I made a full attempt to do that, yes. I don't 01:17PM</p> <p>23 know if I reviewed every word of it, but. 01:17PM</p> <p>24 Q And you made a full attempt to review the 01:17PM</p> <p>25 complete IEEE LLDP standard before moving on to the 01:17PM</p> <p style="text-align: right;">Page 130</p>	<p>1 proprietary protocol like CDP? 01:19PM</p> <p>2 MR. CANNON: Objection; vague, lacks foundation, 01:19PM</p> <p>3 and calls for improper opinion testimony. 01:19PM</p> <p>4 MR. WONG: Let me -- let me take a step back 01:19PM</p> <p>5 here. 01:19PM</p> <p>6 Q You are -- you are familiar with CDP; correct? 01:19PM</p> <p>7 A Yes. 01:19PM</p> <p>8 Q And you -- you were familiar with CDP from your 01:19PM</p> <p>9 time working at Cisco; correct? 01:19PM</p> <p>10 A Yes. Yes. 01:19PM</p> <p>11 Q What type of experience did you have working with 01:19PM</p> <p>12 CDP from your employment at Cisco? 01:19PM</p> <p>13 A I -- before getting into this project, I didn't 01:19PM</p> <p>14 have a lot of opportunity or need to work with CDP. I 01:19PM</p> <p>15 know that it existed, and after I got tasked with this, 01:19PM</p> <p>16 I -- I -- I looked at it and got deeper knowledge of it 01:19PM</p> <p>17 and understood that it is a proprietary protocol and we 01:19PM</p> <p>18 are standardizing it in LLDP and -- yeah. 01:20PM</p> <p>19 Q And so during what stage of the five stages that 01:20PM</p> <p>20 we have been talking about for Phase 1 of the LLDP 01:20PM</p> <p>21 project did you look at Cisco's implementation of CDP? 01:20PM</p> <p>22 A The first three. 01:20PM</p> <p>23 Q And what did you -- what did you review to get up 01:20PM</p> <p>24 to speed on Cisco's implementation of CDP? 01:20PM</p> <p>25 A I -- I looked at the code. I looked at the 01:20PM</p> <p style="text-align: right;">Page 132</p>
<p>1 design stage of Phase 1 of the LLDP project; correct? 01:17PM</p> <p>2 MR. CANNON: Objection; vague. 01:18PM</p> <p>3 THE WITNESS: Yes. I mean, I didn't read the -- 01:18PM</p> <p>4 each cell of the table, but from a general understanding 01:18PM</p> <p>5 and the main concepts, yes. 01:18PM</p> <p>6 BY MR. WONG: 01:18PM</p> <p>7 Q Why was it important to review as much of the 01:18PM</p> <p>8 IEEE LLDP standard as possible before moving on to the 01:18PM</p> <p>9 design stage of Phase 1 of the LLDP project? 01:18PM</p> <p>10 MR. CANNON: Objection; vague, assumes facts not 01:18PM</p> <p>11 in evidence, mischaracterizes testimony. 01:18PM</p> <p>12 THE WITNESS: Because we wanted to do a very 01:18PM</p> <p>13 solid job of the architecture, and, fundamentally, we 01:18PM</p> <p>14 were, from an architecture standpoint, trying to 01:18PM</p> <p>15 understand how they should co-exist with CDP. 01:18PM</p> <p>16 BY MR. WONG: 01:18PM</p> <p>17 Q And what is "CDP"? 01:18PM</p> <p>18 A Oh, Cisco Discovery Protocol. 01:18PM</p> <p>19 Q And was Cisco Discovery Protocol an 01:18PM</p> <p>20 industry-standardized protocol? 01:19PM</p> <p>21 A No. 01:19PM</p> <p>22 Q What was it, then? 01:19PM</p> <p>23 A Cisco proprietary discovery protocol. 01:19PM</p> <p>24 Q What's the difference between a 01:19PM</p> <p>25 industry-standardized protocol like LLDP and a 01:19PM</p> <p style="text-align: right;">Page 131</p>	<p>1 specifications, and I probably discussed with the 01:20PM</p> <p>2 original developer for it, and that's about what I must 01:20PM</p> <p>3 have done, yeah. 01:20PM</p> <p>4 Q Is LLDP based at all on CDP, to your knowledge? 01:20PM</p> <p>5 MR. CANNON: Objection; vague, lacks foundation, 01:20PM</p> <p>6 calls for improper opinion testimony. 01:21PM</p> <p>7 THE WITNESS: It's very similar, and I -- it's 01:21PM</p> <p>8 certainly heavily influenced by CDP, but I -- I -- I 01:21PM</p> <p>9 would be wrong to say that it is based on CDP. 01:21PM</p> <p>10 BY MR. WONG: 01:21PM</p> <p>11 Q What are the similarities between CDP and LLDP, 01:21PM</p> <p>12 to your knowledge? 01:21PM</p> <p>13 MR. CANNON: Objection; vague, lacks foundation, 01:21PM</p> <p>14 and calls for improper opinion testimony. 01:21PM</p> <p>15 THE WITNESS: The mechanics of it, meaning we 01:21PM</p> <p>16 send it -- there is a frequency of keep-alive messages. 01:21PM</p> <p>17 There is a frequency of initial discovery as opposed to 01:21PM</p> <p>18 a push button, one point say -- message saying, hey, I'm 01:21PM</p> <p>19 alive, and until I send another message that I'm not 01:21PM</p> <p>20 alive, don't even bother. 01:21PM</p> <p>21 There are various paradigms of how this can be 01:21PM</p> <p>22 done, right? So in that respect, it's -- it's similar, 01:21PM</p> <p>23 and that's how it influences the -- the standard 01:22PM</p> <p>24 protocol in LLDP. 01:22PM</p> <p>25 BY MR. WONG: 01:22PM</p> <p style="text-align: right;">Page 133</p>



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1 Q Did you come up with the term "neighbors" in the 01:32PM	1 and there is no right answer for this, but my personal 01:34PM
2 sense of discovery? 01:32PM	2 opinion is a yes. 01:34PM
3 A No. 01:32PM	3 BY MR. WONG: 01:34PM
4 Q Where did the term "neighbors" come from as used 01:32PM	4 Q And why is that important, Mr. Patil? 01:34PM
5 in the sense of discovery? 01:32PM	5 MR. CANNON: Same objections. 01:34PM
6 MR. CANNON: Objection; lacks foundation. 01:32PM	6 THE WITNESS: My personal opinion is that devices 01:34PM
7 BY MR. WONG: 01:32PM	7 should freely discover each other and collaborate to 01:35PM
8 Q If you know. 01:32PM	8 bring about functionality, and that's the reason they 01:35PM
9 A More from intuition, more from just being able to 01:32PM	9 should be -- there should be a standard. 01:35PM
10 communicate it correctly. 01:32PM	10 BY MR. WONG: 01:35PM
11 Q Communicate it correctly to who -- strike that. 01:32PM	11 Q And when you say devices should be able to freely 01:35PM
12 Communicate it directly to who? 01:32PM	12 discover each other, you are referring to devices from 01:35PM
13 A The reviewers, the -- the reviewers and people 01:32PM	13 different vendors; correct? 01:35PM
14 who will give me suggestions on where -- what -- what to 01:32PM	14 A That's correct. 01:35PM
15 change or how to improve it. 01:33PM	15 Q And the only way that you can have devices from 01:35PM
16 Q Why is it that a non-Cisco device cannot interact 01:33PM	16 different vendors to freely discover each other, as you 01:35PM
17 with a Cisco device in the process of discovering each 01:33PM	17 say, would be to have a standard to do that; correct? 01:35PM
18 other as neighbors, as you say here on page 3 of 01:33PM	18 MR. CANNON: Objection; vague, lacks foundation, 01:35PM
19 Exhibit 317? 01:33PM	19 calls for improper opinion testimony. 01:35PM
20 MR. CANNON: Objection; vague, incomplete 01:33PM	20 THE WITNESS: That's correct. 01:35PM
21 hypothetical, calls for improper opinion testimony, 01:33PM	21 BY MR. WONG: 01:35PM
22 lacks foundation. 01:33PM	22 Q And, finally, the last sentence in this 01:35PM
23 THE WITNESS: Because the existing protocols back 01:33PM	23 paragraph, top of page 3 of Exhibit 317, says, "LLDP was 01:35PM
24 then were proprietary. Cisco had its own proprietary 01:33PM	24 standardized by IEEE as part of 802.1ab, and Cisco's 01:35PM
25 protocol for discovery. Model [phonetic] had its own 01:33PM	25 implementation will be based on this standard." 01:35PM
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1 proprietary protocol for discovery, and they don't talk 01:33PM	1 Do you see that? 01:35PM
2 to each other. That's what I meant. 01:33PM	2 A Yes. 01:35PM
3 BY MR. WONG: 01:33PM	3 Q Right. 01:35PM
4 Q And the next sentence in this paragraph, you 01:33PM	4 This 802.1AB that you are referring to in 01:35PM
5 wrote: "Thus there is a need for Cisco devices to 01:33PM	5 Exhibit 317 is the same standard marked as Exhibit 315 01:36PM
6 comply with an industry standard for network topology 01:33PM	6 here; correct? 01:36PM
7 discovery." 01:33PM	7 A That's correct. 01:36PM
8 Do you see that? 01:33PM	8 Q Okay. And is it correct that Cisco's 01:36PM
9 A Yes. 01:33PM	9 implementation of LLDP was based upon the IEEE standard 01:36PM
10 Q Why is there a need for Cisco devices to comply 01:33PM	10 marked as Exhibit 315? 01:36PM
11 with an industry standard for network topology 01:33PM	11 MR. CANNON: Objection; vague. 01:36PM
12 discovery, as you wrote in Exhibit 317? 01:34PM	12 THE WITNESS: It is based upon that, right. 01:36PM
13 MR. CANNON: Objection; vague, lacks foundation, 01:34PM	13 BY MR. WONG: 01:36PM
14 calls for improper opinion testimony. 01:34PM	14 Q And that was intentional; correct? 01:36PM
15 THE WITNESS: The answer is in the very previous 01:34PM	15 MR. CANNON: Objection; vague. 01:36PM
16 sentence for that, yeah. Basically says that a 01:34PM	16 MR. WONG: Let me rephrase the question. 01:36PM
17 non-Cisco device cannot interact with a Cisco device in 01:34PM	17 Q When you were working on implementing LLDP in 01:36PM
18 the process of discovery. 01:34PM	18 Cisco's devices, you intended for the implementation to 01:36PM
19 BY MR. WONG: 01:34PM	19 follow the IEEE standard marked as Exhibit 315; correct? 01:36PM
20 Q Is it important for a non-Cisco device to be able 01:34PM	20 MR. CANNON: Objection; vague. 01:36PM
21 to interact with a Cisco device in the process of 01:34PM	21 THE WITNESS: Correct. 01:36PM
22 discovering each other as neighbors? 01:34PM	22 BY MR. WONG: 01:36PM
23 MR. CANNON: Objection; vague, lacks foundation, 01:34PM	23 Q You intended Cisco's implementation of LLDP to be 01:36PM
24 calls for improper opinion testimony. 01:34PM	24 compliant with the IEEE standard marked as Exhibit 315; 01:36PM
25 THE WITNESS: This is an architectural question, 01:34PM	25 right? 01:37PM
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1 A Compliant with, yes. 01:37PM	1 that with one -- with just one vendor's equipment just 01:40PM
2 Q In the third paragraph on page 3 of Exhibit 317, 01:37PM	2 to make SNMP work, and that level of interoperability at 01:40PM
3 first sentence says, "LLDP facilitates the use of 01:37PM	3 the SNMP level can be very handy in -- in -- in larger 01:40PM
4 standard management tools such as SNMP in a multi-vendor 01:37PM	4 networks. 01:40PM
5 network..." 01:37PM	5 BY MR. WONG: 01:40PM
6 Do you see that? 01:37PM	6 Q If there wasn't the standardization for SNMP 01:40PM
7 A Yes. 01:37PM	7 inquiries and you had a multivendor network, would you 01:40PM
8 Q What do you mean by that statement? 01:37PM	8 have to write different SNMP inquiries for each network? 01:40PM
9 A So the answer to that might get a little 01:37PM	9 MR. CANNON: Objection; vague, incomplete 01:41PM
10 technical, but I'll say that anyway. 01:37PM	10 hypothetical, lacks foundation, calls for improper 01:41PM
11 Part of the IEEE standard is also a specification 01:37PM	11 opinion testimony. 01:41PM
12 of topology Management Information Base, which can be 01:37PM	12 THE WITNESS: If that were the case, then -- then 01:41PM
13 developed to make SNMP queries, so if the Management 01:37PM	13 we are -- we are essentially talking of vendor-specific 01:41PM
14 Information Base can be standard across all vendors, 01:37PM	14 Management Information Bases, and that would, at the 01:41PM
15 that means that the SNMP queries will apply universally 01:38PM	15 very least, at least require some level of nonstandard 01:41PM
16 across all vendors, and that's the -- the added 01:38PM	16 or tailored queries for each vendor. 01:41PM
17 advantage of standardizing this. 01:38PM	17 BY MR. WONG: 01:41PM
18 Q And what is "SNMP"? 01:38PM	18 Q If you turn back to Exhibit 315, it's the IEEE 01:42PM
19 A It -- it stands for Simple Network Management 01:38PM	19 standard for LLDP. 01:42PM
20 Protocol. 01:38PM	20 A Yes. 01:42PM
21 Q And how was -- what's the function or purpose of 01:38PM	21 Q Now, LLDP is a defined term in the IEEE standard; 01:42PM
22 SNMP? 01:38PM	22 correct? 01:42PM
23 MR. CANNON: Objection; vague. 01:38PM	23 A Yes. 01:42PM
24 THE WITNESS: The purpose of SNMP is to, 01:38PM	24 Q In fact, if you look to page 5 of -- and I'm 01:42PM
25 essentially, allow network administrators and engineers 01:38PM	25 looking -- pointing to page 5 at the bottom of the page 01:42PM
Page 146	Page 148
1 and developers to be able to create network information 01:38PM	1 of Exhibit 315, there is a section on the top that it 01:42PM
2 and send -- send trap -- what are called -- technically 01:38PM	2 says "Definitions and numerical representation." 01:42PM
3 called "traps," SNMP traps, to signal significant events 01:39PM	3 Do you see that? 01:42PM
4 in a network. And it's a protocol that persists network 01:39PM	4 A Yes. 01:42PM
5 information in a -- in a place called MIB, Management 01:39PM	5 Q And entry 3.1.6 -- 01:42PM
6 Information Base, and then provides a user interface 01:39PM	6 A Yes. 01:42PM
7 to -- to query that data. 01:39PM	7 Q -- defines Link Layer Discovery Protocol and, in 01:42PM
8 BY MR. WONG: 01:39PM	8 parentheses, LLDP. 01:42PM
9 Q And I think you said that if the Management 01:39PM	9 Do you see that? 01:42PM
10 Information Base, or MIB, can be standard across all 01:39PM	10 A Mm-hmm. 01:42PM
11 vendors, that means that the SNMP inquiries [sic] will 01:39PM	11 Q So you were aware that LLDP was a defined acronym 01:42PM
12 apply universally across all vendors; right? 01:39PM	12 in the actual IEEE standard while you were working on 01:43PM
13 A Yes. 01:39PM	13 Phase 1 of the LLDP project; correct? 01:43PM
14 Q So that means that a network administrator and 01:39PM	14 MR. CANNON: Objection; vague. 01:43PM
15 engineers can use the same SNMP inquiries for different 01:39PM	15 THE WITNESS: Yes. 01:43PM
16 vendor products; correct? 01:39PM	16 BY MR. WONG: 01:43PM
17 A Correct, if they are connect -- interconnected. 01:39PM	17 Q If you turn the page to page 6 -- 01:43PM
18 Q And what's the advantage of -- what's the 01:39PM	18 A Mm-hmm. 01:43PM
19 advantage to a network administrator to be able to use 01:40PM	19 Q -- entry 3.1.21. 01:43PM
20 the same SNMP inquiries for different vendor products? 01:40PM	20 Do you see that? 01:43PM
21 MR. CANNON: Objection; vague, lacks foundation, 01:40PM	21 A Yes. 01:43PM
22 calls for improper opinion testimony. 01:40PM	22 Q It says, "type, length, value (TLV)." 01:43PM
23 THE WITNESS: If a certain topology or deployment 01:40PM	23 Do you see that? 01:43PM
24 includes multiple -- inputs equipment from multiple 01:40PM	24 A Yes. 01:43PM
25 vendors, they don't have to tear that apart and replace 01:40PM	25 Q You were aware, by Stage 1 or at least Stage 2 of 01:43PM
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1 Phase 1 of the LLDP project, that the IEEE standard for	01:43PM	1 that?	01:45PM
2 LLDP defined the acronym TLV; correct?	01:43PM	2 MR. WONG: I'll tell you once I see it. Yes,	01:45PM
3 MR. CANNON: Objection; vague, mischaracterizes	01:43PM	3 page 39. Control number is -- ends in 17959.	01:46PM
4 the document.	01:43PM	4 Q Are you there?	01:46PM
5 THE WITNESS: Yes.	01:43PM	5 A Yeah, I am.	01:46PM
6 BY MR. WONG:	01:43PM	6 Q So Section 10.3.4 is called "Too many neighbors."	01:46PM
7 Q In fact, on page 7 of Exhibit 315, at the very	01:43PM	7 Do you see that?	01:46PM
8 top, it's a section called "Acronyms and abbreviations";	01:43PM	8 A Mm-hmm.	01:46PM
9 correct?	01:43PM	9 Q Now, we were talking earlier about the use of the	01:46PM
10 A Yes.	01:43PM	10 word "neighbors" in the functional specification that	01:46PM
11 Q And both LLDP and TLV are listed as defined	01:43PM	11 you wrote --	01:46PM
12 acronyms within the IEEE LLDP standard; right?	01:43PM	12 A Yes.	01:46PM
13 A Yes.	01:44PM	13 Q -- right?	01:46PM
14 Q And you were aware of that before you began the	01:44PM	14 A Yes.	01:46PM
15 design stage for Phase 1 of the LLDP project; right?	01:44PM	15 Q Is this use of the word "neighbors" here in the	01:46PM
16 A Yes.	01:44PM	16 IEEE specification the -- the same use of the word	01:46PM
17 Q And you were aware of that during the design	01:44PM	17 "neighbors" that you were using in the functional	01:46PM
18 period for the LLDP project; correct?	01:44PM	18 specification?	01:46PM
19 A Yes.	01:44PM	19 MR. CANNON: Objection; vague.	01:46PM
20 Q And if you look at Exhibit 316, which is this	01:44PM	20 THE WITNESS: I was -- I read this specification	01:46PM
21 list of commands?	01:44PM	21 thoroughly, so I -- yeah, I was influenced by some of	01:46PM
22 A Okay.	01:44PM	22 the language in here.	01:47PM
23 Q Are you there?	01:44PM	23 BY MR. WONG:	01:47PM
24 Each of the commands associated with you include	01:44PM	24 Q But you -- you became familiar with the	01:47PM
25 the acronym LLDP.	01:44PM	25 terminology relevant to LLDP by reading the IEEE	01:47PM
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1 Do you see that?	01:44PM	1 standard on LLDP; right?	01:47PM
2 A Yes.	01:44PM	2 MR. CANNON: Objection; vague.	01:47PM
3 Q That LLDP is the same LLDP that is defined within	01:44PM	3 THE WITNESS: Yes.	01:47PM
4 the IEEE LLDP standard; right?	01:44PM	4 BY MR. WONG:	01:47PM
5 MR. CANNON: Objection; vague.	01:44PM	5 Q And in particular here, you were aware that the	01:47PM
6 THE WITNESS: It's -- yeah, it -- it refers to	01:44PM	6 term "neighbors" was used in the IEEE LLDP standard;	01:47PM
7 the Link Layer Discovery Protocol.	01:44PM	7 right?	01:47PM
8 BY MR. WONG:	01:45PM	8 A Mm-hmm.	01:47PM
9 Q I mean, that's the same acronym that appears here	01:45PM	9 MR. CANNON: Objection; vague.	01:47PM
10 on page 7 of Exhibit 315; right? Under "Acronyms and	01:45PM	10 BY MR. WONG:	01:47PM
11 abbreviations" within the IEEE standard; correct?	01:45PM	11 Q Oh, I'm sorry, can you -- let me -- let me ask	01:47PM
12 MR. CANNON: Objection; documents speak for	01:45PM	12 the question one more time.	01:47PM
13 themselves.	01:45PM	13 And in particular here, Section 10.3.4 of	01:47PM
14 THE WITNESS: Yes.	01:45PM	14 Exhibit 315, you were aware that the term "neighbors"	01:47PM
15 BY MR. WONG:	01:45PM	15 was used in the IEEE LLDP standard, yes?	01:47PM
16 Q And your choice of LLDP in each of the commands	01:45PM	16 MR. CANNON: Objection; vague.	01:47PM
17 listed on Exhibit 316, that was intentionally meant to	01:45PM	17 THE WITNESS: Yes.	01:47PM
18 refer to the LLDP acronym within the IEEE standard;	01:45PM	18 BY MR. WONG:	01:47PM
19 right?	01:45PM	19 Q Can you turn to page -- or Section 5.2, please,	01:48PM
20 MR. CANNON: Objection; vague.	01:45PM	20 of Exhibit 315, and that is page 8.	01:48PM
21 THE WITNESS: Yes.	01:45PM	21 Are you there?	01:48PM
22 BY MR. WONG:	01:45PM	22 A Yes.	01:48PM
23 Q If you look at Section 10.3.4 of Exhibit 315 --	01:45PM	23 Q Section 5.2 on page 8 of Exhibit 315 says	01:48PM
24 let me know when you are there.	01:45PM	24 "Required capabilities."	01:48PM
25 MR. CANNON: Do you have the page number for	01:45PM	25 Do you see that?	01:48PM
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1 A Yes. 01:48PM	1 Q So the LLDP implementation that you worked on at 01:50PM
2 Q And under that, it says, "A system for which 01:48PM	2 Cisco -- and, in particular, Phase 1 -- supported a 01:50PM
3 conformance to this standard is claimed shall, for all 01:48PM	3 transmit-only operating mode? 01:50PM
4 ports for which support is claimed, include the 01:48PM	4 A Yes. I don't recall the -- I don't remember it 01:51PM
5 following capabilities," and then it lists items a 01:48PM	5 very clearly, but, yes. 01:51PM
6 through k. 01:48PM	6 Q Okay. And did it also support a receive only -- 01:51PM
7 Do you see that? 01:48PM	7 excuse me. 01:51PM
8 A Yes. 01:48PM	8 Did it also support a receive-only operating 01:51PM
9 MR. CANNON: Objection; mischaracterizes the 01:48PM	9 mode? 01:51PM
10 document. 01:48PM	10 MR. CANNON: Objection; vague, lacks foundation. 01:51PM
11 BY MR. WONG: 01:48PM	11 THE WITNESS: Let me take a moment. Yes. 01:51PM
12 Q Did I read that correctly, Mr. Patil? 01:48PM	12 BY MR. WONG: 01:51PM
13 MR. CANNON: Objection; mischaracterizes the 01:48PM	13 Q And did it also support a transmit and receive 01:51PM
14 document. 01:48PM	14 operating mode? 01:51PM
15 THE WITNESS: You did. 01:48PM	15 MR. CANNON: Objection; vague, lacks foundation. 01:51PM
16 BY MR. WONG: 01:48PM	16 THE WITNESS: Yes. 01:51PM
17 Q And did the Cisco products for which you worked 01:49PM	17 BY MR. WONG: 01:51PM
18 on the LLDP implementation conform to the standard 01:49PM	18 Q And each of those features that we just talked 01:51PM
19 marked as Exhibit 315? 01:49PM	19 about, those were implemented as part of Phase 1 of the 01:51PM
20 MR. CANNON: Objection; vague, lacks foundation, 01:49PM	20 LLDP project that you worked on, Mr. Patil? 01:51PM
21 calls for improper opinion testimony. 01:49PM	21 MR. CANNON: Objection; vague. 01:51PM
22 MR. WONG: Let me rephrase the question. 01:49PM	22 THE WITNESS: Yes. 01:51PM
23 Q Were the required capabilities listed in 01:49PM	23 BY MR. WONG: 01:51PM
24 Section 5.2 of Exhibit 315 implemented when you did the 01:49PM	24 Q If you turn to page 43 of Exhibit 315 -- let me 01:52PM
25 LLDP implementation for Cisco's products? 01:49PM	25 know when you are there. 01:52PM
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1 MR. CANNON: Objection; vague, compound, lacks 01:49PM	1 A Yes. 01:52PM
2 foundation, and calls for improper opinion testimony. 01:49PM	2 Q -- section 10.5.2 is called "Statistical 01:52PM
3 THE WITNESS: I don't know how many are specific 01:49PM	3 counters." 01:52PM
4 deal with are implemented, but the focus was to be as 01:49PM	4 Do you see that? 01:52PM
5 compliant as possible. 01:49PM	5 A Yes. 01:52PM
6 BY MR. WONG: 01:49PM	6 Q And, under that, it says, "Statistical counters 01:52PM
7 Q If you look at subsection i under Section 5.2 -- 01:49PM	7 shall be provided to accumulate operational statistics 01:52PM
8 A Yes. 01:50PM	8 on a per-port basis." 01:52PM
9 Q -- it says, "The protocol shall conform to the 01:50PM	9 Do you see that? 01:52PM
10 specifications for all Clause 10 subclauses indicated in 01:50PM	10 A Yes. 01:52PM
11 Table 10-1 for the particular operating mode," and then 01:50PM	11 Q Is it your understanding that the support of 01:52PM
12 in parentheses it has "transmit only, receive only, or 01:50PM	12 statistical counters is required by the IEEE LLDP 01:52PM
13 transmit and receive," close parentheses, "being 01:50PM	13 standard? 01:52PM
14 implemented." 01:50PM	14 MR. CANNON: Objection; vague, lacks foundation, 01:52PM
15 Do you see that? 01:50PM	15 calls for improper opinion testimony. 01:52PM
16 A Yes. 01:50PM	16 THE WITNESS: Can you repeat the question again? 01:52PM
17 Q Did I read that correctly? 01:50PM	17 MR. WONG: Sure. 01:52PM
18 A Yes. 01:50PM	18 Q Is it your understanding that providing 01:52PM
19 Q Did the LLDP implementation that you worked on at 01:50PM	19 statistical counters is a requirement of complying with 01:52PM
20 Cisco include this capability described by subsection i 01:50PM	20 the IEEE LLDP standard? 01:53PM
21 under Section 5.2? 01:50PM	21 MR. CANNON: Same objections. 01:53PM
22 MR. CANNON: Objection; vague, lacks foundation, 01:50PM	22 THE WITNESS: Yes. 01:53PM
23 calls for improper opinion testimony. 01:50PM	23 BY MR. WONG: 01:53PM
24 THE WITNESS: Yes, it included. 01:50PM	24 Q And did you, in fact, support statistical 01:53PM
25 BY MR. WONG: 01:50PM	25 counters when you worked on the LLDP implementation at 01:53PM
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1 Cisco? 01:53PM	1 Do you see that? 01:56PM
2 MR. CANNON: Same objections. 01:53PM	2 A Yes. 01:56PM
3 THE WITNESS: Yes. 01:53PM	3 Q What are "MIB tables"? 01:56PM
4 BY MR. WONG: 01:53PM	4 A So "MIB tables" are the -- the storage that make 01:56PM
5 Q Now, you were looking at Exhibit 316 while you 01:53PM	5 SNMP queries possible, so MIBs are -- essentially 01:56PM
6 were confirming your answer; correct? 01:53PM	6 support information for SNMP. 01:56PM
7 A That's correct. 01:53PM	7 Q And so are -- are the tables different from the 01:56PM
8 Q What -- what were you looking for in Exhibit 316 01:53PM	8 MIBs themselves? 01:56PM
9 to confirm your answer? 01:53PM	9 A MIBs -- MIB tables are like the blueprint for the 01:56PM
10 MR. CANNON: Objection; mischaracterizes 01:53PM	10 actual tables -- I'm sorry, MIB tables are the blueprint 01:56PM
11 testimony. 01:53PM	11 for the actual MIB data, if that makes sense. 01:56PM
12 THE WITNESS: I was looking at the CLI. I 01:53PM	12 Q MIB tables -- I'm sorry, can you explain that? 01:56PM
13 vaguely recalled that I supported that, but I was 01:53PM	13 So let me -- let me ask the question again. 01:57PM
14 looking at the -- the list of CLIs here to -- to confirm 01:53PM	14 How -- strike that. 01:57PM
15 that it -- it was in Phase 1. 01:54PM	15 Are tables different from the MIBs themselves? 01:57PM
16 BY MR. WONG: 01:54PM	16 A In -- in the -- and I have not used this language 01:57PM
17 Q And which CLI command did you look at to confirm 01:54PM	17 for a long time, and I've not used SNMP in a long time, 01:57PM
18 that the support of counters was included in Phase 1 of 01:54PM	18 but my understanding is that the language of SNMP -- in 01:57PM
19 the LLDP project? 01:54PM	19 the language of SNMP, the MIB table is like a blueprint. 01:57PM
20 MR. CANNON: Objection; vague, mischaracterizes 01:54PM	20 It's called the data that is housed in the MIB. 01:57PM
21 testimony. 01:54PM	21 Q And the -- the term "MIB table," that -- is that 01:57PM
22 THE WITNESS: I just confirmed that "show lldp 01:54PM	22 a term that is familiar to those in networking industry? 01:57PM
23 traffic" does exist in this table so that I can answer 01:54PM	23 MR. CANNON: Objection; vague, lacks foundation, 01:57PM
24 you. 01:54PM	24 calls for improper opinion testimony. 01:57PM
25 BY MR. WONG: 01:54PM	25 THE WITNESS: Yes. 01:57PM
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1 Q If you turn to page 49 of Exhibit 315 -- let me 01:54PM	1 BY MR. WONG: 01:57PM
2 know when you are there. 01:54PM	2 Q And you certainly know what a "MIB table" is if 01:57PM
3 A Yes. 01:54PM	3 you heard that term used; correct? 01:58PM
4 Q -- if you look under Section 11.2.2, it's called 01:54PM	4 A Yes. 01:58PM
5 "TLV selection management." 01:54PM	5 Q And you would understand what a "MIB table" is 01:58PM
6 Do you see that? 01:54PM	6 based upon your experience working in the networking 01:58PM
7 A Yes. 01:54PM	7 industry; correct? 01:58PM
8 Q What is "TLV selection management"? 01:54PM	8 A Yes. 01:58PM
9 A So some of the data that is sent in a discovery 01:54PM	9 Q What was the process at Cisco for selecting a 01:58PM
10 packet is mandatory, and some of it is optional, and 01:55PM	10 command syntax? And we can talk specifically about the 01:58PM
11 what the standard calls for is the ability to specify 01:55PM	11 commands listed on Exhibit 316 -- 01:58PM
12 which of the optional TLVs the admin wants to send on a 01:55PM	12 A Mm-hmm. 01:58PM
13 particular port or suppress on a particular port, so 01:55PM	13 Q -- but -- so let me just rephrase the question, 01:58PM
14 that's what TLV selection management essentially means. 01:55PM	14 actually. 01:58PM
15 Q And when you worked on Phase 1 of the LLDP 01:55PM	15 For the commands listed in Exhibit 316, what was 01:58PM
16 project at Cisco, did you include the ability for TLV 01:55PM	16 the process at Cisco for selecting the command syntax? 01:58PM
17 selection in that implementation? 01:55PM	17 MR. CANNON: Objection; vague, lacks foundation, 01:58PM
18 A Yes. 01:55PM	18 calls for speculation. 01:58PM
19 Q In that first paragraph below Section 11.2.2 in 01:55PM	19 THE WITNESS: Well, there is -- the -- the 01:58PM
20 Exhibit 315 -- 01:56PM	20 product owner, which is me, lead developer for the 01:58PM
21 A Mm-hmm. 01:56PM	21 product, comes up with initial proposal, and it is, 01:58PM
22 Q -- the second sentence says, "The following LLDP 01:56PM	22 essentially, reviewed by a group of people that are 01:58PM
23 variables cross reference to LLDP local systems 01:56PM	23 highly experienced for -- for usability and 01:59PM
24 configuration MIB tables," and then it -- there's a 01:56PM	24 extensibility, and so on, so there are certain criteria 01:59PM
25 remainder of the sentence. 01:56PM	25 that they look -- look at, including usability, 01:59PM
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<p>1 subcommands under certain -- at certain places, and 02:16PM</p> <p>2 that -- that's -- that's what it means. 02:16PM</p> <p>3 Q And why is that important when coming up with a 02:16PM</p> <p>4 command syntax? 02:16PM</p> <p>5 MR. CANNON: Objection; vague, lacks foundation, 02:16PM</p> <p>6 incomplete hypothetical, calls for improper opinion 02:16PM</p> <p>7 testimony. 02:16PM</p> <p>8 THE WITNESS: To support extensibility in -- in 02:16PM</p> <p>9 general in the sense that we might do certain things in 02:17PM</p> <p>10 Phase 1 and we might plan to include more commands at a 02:17PM</p> <p>11 certain level in -- in the command hierarchy at a later 02:17PM</p> <p>12 phase, and that is if you know you already want to do 02:17PM</p> <p>13 that. But sometimes we don't even know, and it's all 02:17PM</p> <p>14 the more pressing at that point to -- for -- for it to 02:17PM</p> <p>15 be designed for extensibility. 02:17PM</p> <p>16 BY MR. WONG: 02:17PM</p> <p>17 Q Did you consider extensibility when you were 02:17PM</p> <p>18 proposing the command syntaxes for the commands listed 02:17PM</p> <p>19 on Exhibit 316? 02:17PM</p> <p>20 MR. CANNON: Objection; vague. 02:17PM</p> <p>21 THE WITNESS: Definitely, yes. 02:17PM</p> <p>22 BY MR. WONG: 02:17PM</p> <p>23 Q If you turn to page 4 of Exhibit 318, No. 6 -- 02:17PM</p> <p>24 let me know when you are there. 02:18PM</p> <p>25 A Okay. 02:18PM</p> <p style="text-align: right;">Page 170</p>	<p>1 Q Did you consider that guideline when you were 02:19PM</p> <p>2 devising the command syntaxes listed on Exhibit 316? 02:19PM</p> <p>3 MR. CANNON: Objection; vague. 02:19PM</p> <p>4 THE WITNESS: Yes. In general, yes. 02:19PM</p> <p>5 BY MR. WONG: 02:19PM</p> <p>6 Q How important is the vocabul- -- strike that. 02:19PM</p> <p>7 How important is -- is understanding the 02:19PM</p> <p>8 vocabulary of the intended user of a command to coming 02:19PM</p> <p>9 up with a command syntax, in your view? 02:19PM</p> <p>10 MR. CANNON: Objection; vague, lacks foundation, 02:19PM</p> <p>11 calls for improper opinion testimony. 02:19PM</p> <p>12 THE WITNESS: It's fairly important. 02:19PM</p> <p>13 BY MR. WONG: 02:20PM</p> <p>14 Q Did you consider the vocabulary of the intended 02:20PM</p> <p>15 user of the LLDP functionality when you were coming up 02:20PM</p> <p>16 with the commands listed on Exhibit 316? 02:20PM</p> <p>17 MR. CANNON: Objection; vague. 02:20PM</p> <p>18 THE WITNESS: Yes. 02:20PM</p> <p>19 BY MR. WONG: 02:20PM</p> <p>20 Q Do you think it's important to have guidelines 02:20PM</p> <p>21 for the addition of new commands to a command-line 02:20PM</p> <p>22 interface? 02:20PM</p> <p>23 MR. CANNON: Objection; vague, incomplete 02:20PM</p> <p>24 hypothetical, lacks foundation, calls for improper 02:20PM</p> <p>25 opinion testimony. 02:20PM</p> <p style="text-align: right;">Page 172</p>
<p>1 Q -- it says, "When naming a command, try to pick 02:18PM</p> <p>2 names that would be familiar to people in the industry." 02:18PM</p> <p>3 Do you see that? 02:18PM</p> <p>4 A Yes. 02:18PM</p> <p>5 Q When you came up with the commands listed on 02:18PM</p> <p>6 Exhibit 316, did you try to pick names that would be 02:18PM</p> <p>7 familiar to people in the industry? 02:18PM</p> <p>8 MR. CANNON: Objection; vague. 02:18PM</p> <p>9 THE WITNESS: Yes. 02:18PM</p> <p>10 BY MR. WONG: 02:18PM</p> <p>11 Q And did you try to use accepted industry acronyms 02:18PM</p> <p>12 when coming up with the commands listed in Exhibit 316? 02:18PM</p> <p>13 MR. CANNON: Objection; vague. 02:18PM</p> <p>14 THE WITNESS: Yes. 02:18PM</p> <p>15 BY MR. WONG: 02:18PM</p> <p>16 Q If you look down at the bottom of page 4, 02:18PM</p> <p>17 No. 10 -- let me know when you are there. 02:18PM</p> <p>18 A Yeah. 02:19PM</p> <p>19 Q -- it says, "Commands should tend to be 02:19PM</p> <p>20 self-explanatory so that a relatively knowledgeable user 02:19PM</p> <p>21 can figure out the command function from the command and 02:19PM</p> <p>22 on-line help without having to scurry off to the 02:19PM</p> <p>23 manuals." 02:19PM</p> <p>24 Do you see that? 02:19PM</p> <p>25 A Yes. 02:19PM</p> <p style="text-align: right;">Page 171</p>	<p>1 THE WITNESS: Yes. 02:20PM</p> <p>2 BY MR. WONG: 02:20PM</p> <p>3 Q Why do you think it's important to have 02:20PM</p> <p>4 guidelines for the addition of new commands to a 02:20PM</p> <p>5 command-line interface? 02:20PM</p> <p>6 MR. CANNON: Same objections. 02:20PM</p> <p>7 THE WITNESS: The primary reason is the inability 02:20PM</p> <p>8 to reverse commands and the need for backward 02:21PM</p> <p>9 compatibility at every stage of the product evolution. 02:21PM</p> <p>10 And that calls for basically putting out commands in a 02:21PM</p> <p>11 manner that is backward compatible and extensible. 02:21PM</p> <p>12 BY MR. WONG: 02:21PM</p> <p>13 Q So, in your view, considering backwards 02:21PM</p> <p>14 compatibility and extensibility are both important when 02:21PM</p> <p>15 coming up with a new command; correct? 02:21PM</p> <p>16 MR. CANNON: Objection; vague, mischaracterizes 02:21PM</p> <p>17 testimony, lacks foundation, calls for improper opinion 02:21PM</p> <p>18 testimony, incomplete hypothetical. 02:21PM</p> <p>19 THE WITNESS: In the context of the CLI we are 02:21PM</p> <p>20 talking about, that would be correct. 02:21PM</p> <p>21 BY MR. WONG: 02:21PM</p> <p>22 Q And did you consider backwards compatibility and 02:21PM</p> <p>23 extensibility when you proposed the commands listed on 02:21PM</p> <p>24 Exhibit 316? 02:22PM</p> <p>25 MR. CANNON: Objection; vague. 02:22PM</p> <p style="text-align: right;">Page 173</p>

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1 hierarchy. 02:38PM	1 come up with the syntax of "clear lldp counters"? 02:42PM
2 If you want a strict hierarchy, you would have an 02:38PM	2 MR. CANNON: Objection; vague. 02:42PM
3 intermediate node and list all the specific options, but 02:38PM	3 THE WITNESS: Oh, just that one command? 02:42PM
4 since there aren't any, I might have taken this 02:38PM	4 MR. WONG: Mm-hmm. 02:42PM
5 position; although, it's -- it's -- it may seem a little 02:38PM	5 THE WITNESS: I don't know, 15 minutes. 02:42PM
6 bit weak for in terms of future-proofing things. 02:38PM	6 BY MR. WONG: 02:42PM
7 So there's a -- there's a -- there's a balance 02:39PM	7 Q Okay. How long did it take you, approximately, 02:42PM
8 between future-proofing and -- and verbosity, and -- and 02:39PM	8 to do the source code writing to implement the 02:42PM
9 the more you try to feature-proof, the more verbose you 02:39PM	9 functionality for the "clear lldp counters" command? 02:42PM
10 can become, so it's more of a subjective column how you 02:39PM	10 MR. CANNON: Objection; vague, assumes facts not 02:42PM
11 design, keeping all of these in mind, yeah. 02:39PM	11 in evidence. 02:42PM
12 Q Thank you. 02:39PM	12 THE WITNESS: Okay. That would be, again, 02:42PM
13 And after letter "d" on Exhibit 321, you say, 02:39PM	13 15 minutes, and I have to add that this is a easiest one 02:42PM
14 quote: It is more intuitive for first-time users, end 02:39PM	14 to implement. 02:42PM
15 quote. 02:39PM	15 BY MR. WONG: 02:42PM
16 Do you see that? 02:39PM	16 Q For the "clear lldp table" command -- 02:42PM
17 A Yes. 02:39PM	17 A Mm-hmm. 02:42PM
18 Q What did you mean by that? 02:39PM	18 Q -- what functionality does that perform? 02:43PM
19 A This means that -- that user interface should 02:39PM	19 A That is, again, a reset, but more at the enable 02:43PM
20 flow naturally in a sense that if I've never used 02:39PM	20 level in the sense that, let's say, a device comes up 02:43PM
21 anything similar, I should be pretty much able to -- I 02:39PM	21 and it discovers ten neighbors and we want to come in 02:43PM
22 should be able to come in and type in a reasonable 02:39PM	22 and manually reset the table by making it forget all 02:43PM
23 keyword for things and get help on it and be able to 02:40PM	23 those ten neighbors instantly, then we would use that 02:43PM
24 complete a configuration within a reasonable amount of 02:40PM	24 command. 02:43PM
25 time rather than going through hours of research on it. 02:40PM	25 Q And approximately how long did it take you to 02:43PM
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1 Q And that approach that you just described, did 02:40PM	1 come up with the syntax of "clear lldp table"? 02:43PM
2 you apply that approach for the commands that are listed 02:40PM	2 MR. CANNON: Objection; vague. 02:43PM
3 in Exhibit 316? 02:40PM	3 THE WITNESS: The answer would be very similar to 02:43PM
4 MR. CANNON: Objection; vague. 02:40PM	4 the other "clear" command. 02:43PM
5 THE WITNESS: The -- what is 316? This is the 02:40PM	5 BY MR. WONG: 02:43PM
6 one -- okay. This -- it -- it certainly influenced our 02:40PM	6 Q About 15 minutes? 02:43PM
7 structure for these commands. Yeah, so intuitiveness, 02:40PM	7 A Yes. 02:43PM
8 extensibility, usability, aesthetics are all factors 02:40PM	8 Q And did it take you also about 15 minutes to 02:43PM
9 that we considered. 02:40PM	9 write the underlying source code for the functionality 02:43PM
10 BY MR. WONG: 02:41PM	10 of the "clear lldp table" command? 02:43PM
11 Q Let's look at Exhibit 316 now, Mr. Patil. 02:41PM	11 A No. 02:43PM
12 A Yeah. 02:41PM	12 Q How long, approximately, did it take you to come 02:43PM
13 Q Starting with the first command, you were 02:41PM	13 up with the -- strike that. 02:43PM
14 associated with "clear lldp counters." 02:41PM	14 How long, approximately, did it take you to write 02:43PM
15 Do you see that? 02:41PM	15 the source code for the "clear lldp table" command? 02:43PM
16 A Yes. 02:41PM	16 MR. CANNON: Objection; vague. 02:44PM
17 Q What function does the "clear lldp counters" 02:41PM	17 THE WITNESS: I can't quantify it readily, but it 02:44PM
18 command perform? 02:41PM	18 would be, if you tally the total time spent on it, maybe 02:44PM
19 A It's basically a reset, if you will, of all the 02:41PM	19 a couple hours, because there is dependencies to handle. 02:44PM
20 statistics that have been accumulated over a period of 02:41PM	20 It's not as easy as setting a bunch of numbers to zero. 02:44PM
21 time, and if you want to start off on a clean slate 02:41PM	21 BY MR. WONG: 02:44PM
22 again at a certain period of time on a -- on a certain 02:41PM	22 Q And for all of the commands listed on 02:44PM
23 router or switch, then you could issue that command and 02:42PM	23 Exhibit 316, Mr. Patil, can you describe for me, 02:44PM
24 it will clear all the statistics. 02:42PM	24 generally, what type of source code you would need to 02:44PM
25 Q And how long did it take you, approximately, to 02:42PM	25 write to implement the functionality? 02:44PM
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<p>1 MR. CANNON: Objection; compound, vague, lacks 02:44PM</p> <p>2 foundation, incomplete hypothetical, calls for improper 02:44PM</p> <p>3 opinion testimony. 02:44PM</p> <p>4 THE WITNESS: So to clarify the question, what 02:44PM</p> <p>5 type of code needs to be written to clear the command 02:44PM</p> <p>6 for the "clear" commands? 02:44PM</p> <p>7 MR. WONG: No, no. 02:44PM</p> <p>8 Q So, for example, you know, to write the source 02:44PM</p> <p>9 code for any of these commands listed on Exhibit 316 -- 02:44PM</p> <p>10 A Yeah. 02:44PM</p> <p>11 Q -- what are the types of source code that would 02:44PM</p> <p>12 need to be written in order to implement them? 02:45PM</p> <p>13 MR. CANNON: Objection; compound, vague, lacks 02:45PM</p> <p>14 foundation, incomplete hypothetical, calls for improper 02:45PM</p> <p>15 opinion testimony. 02:45PM</p> <p>16 THE WITNESS: The source code is written in C -- 02:45PM</p> <p>17 C language, and, essentially, all these commands have a 02:45PM</p> <p>18 callback which can be implemented as a C function, and 02:45PM</p> <p>19 whenever a user travels to a certain point and they pass 02:45PM</p> <p>20 tree, that function that gets attached to that node in 02:45PM</p> <p>21 the tree gets executed, and, basically, it's -- it's 02:45PM</p> <p>22 given the information about the construct that it's 02:45PM</p> <p>23 handling, and, at that point, they -- they just -- we 02:45PM</p> <p>24 just go in and change the fields in there. 02:45PM</p> <p>25 BY MR. WONG: 02:45PM</p> <p style="text-align: right;">Page 190</p>	<p>1 MR. CANNON: And because of that, we are going to 02:47PM</p> <p>2 have a standing objection to questions about this 02:47PM</p> <p>3 partial document without the sufficient context for it 02:47PM</p> <p>4 to be reviewed or understood. 02:47PM</p> <p>5 BY MR. WONG: 02:47PM</p> <p>6 Q Now, Mr. Patil, I'm just providing this exhibit 02:47PM</p> <p>7 for you so that you can refresh your recollection, if 02:48PM</p> <p>8 you need to -- 02:48PM</p> <p>9 A Mm-hmm. 02:48PM</p> <p>10 Q -- about what these various commands do. I won't 02:48PM</p> <p>11 ask you any other questions about this exhibit, but feel 02:48PM</p> <p>12 free to refer to Exhibit 322 -- 02:48PM</p> <p>13 A Yeah. 02:48PM</p> <p>14 Q -- to answer my questions. 02:48PM</p> <p>15 A Yes. 02:48PM</p> <p>16 Q So my question that I posed a few minutes ago is: 02:48PM</p> <p>17 What is the function performed by the "lldp holdtime" 02:48PM</p> <p>18 command? 02:48PM</p> <p>19 MR. CANNON: Objection -- 02:48PM</p> <p>20 THE WITNESS: So. 02:48PM</p> <p>21 MR. CANNON: -- lacks foundation, document speaks 02:48PM</p> <p>22 for itself. 02:48PM</p> <p>23 THE WITNESS: -- after reading, I still cannot 02:48PM</p> <p>24 completely understand why we did that or what the 02:48PM</p> <p>25 concept is, because it's been a while since I wrote this 02:48PM</p> <p style="text-align: right;">Page 192</p>
<p>1 Q And that explanation you just provided applies to 02:45PM</p> <p>2 all of the commands listed here on Exhibit 316; correct? 02:45PM</p> <p>3 A Yes. 02:45PM</p> <p>4 MR. CANNON: Objection; vague, compound. 02:45PM</p> <p>5 BY MR. WONG: 02:45PM</p> <p>6 Q What is the functionality performed by the "lldp 02:46PM</p> <p>7 holdtime" command? 02:46PM</p> <p>8 A Yeah, so that's an interesting one. It's a 02:46PM</p> <p>9 subtle one, and I -- being that it's ten years since I 02:46PM</p> <p>10 wrote this, I've forgotten that, but it's -- it's kind 02:46PM</p> <p>11 of technical detail on LLDP that I can look up if you 02:46PM</p> <p>12 want, but -- 02:46PM</p> <p>13 MR. WONG: Maybe this will help you. 02:46PM</p> <p>14 What's the next exhibit number? 02:46PM</p> <p>15 THE REPORTER: 322. 02:47PM</p> <p>16 (Exhibit 322 was marked for 02:47PM</p> <p>17 identification by the Court Reporter.) 02:47PM</p> <p>18 MR. WONG: The Court Reporter has marked, as 02:47PM</p> <p>19 Exhibit 322, a document bearing Bates number, on the 02:47PM</p> <p>20 front page, CSI-CLI-00291752, and the last page of this 02:47PM</p> <p>21 document is CSI-CLI-00292238, and for clarity on the 02:47PM</p> <p>22 record, this is not the complete document. The complete 02:47PM</p> <p>23 document is over 500 pages long. This is excerpted 02:47PM</p> <p>24 pages from this document produced by Cisco with just the 02:47PM</p> <p>25 LLDP-related commands. 02:47PM</p> <p style="text-align: right;">Page 191</p>	<p>1 and I've not used it for a long time. 02:48PM</p> <p>2 But I think it's a request from the sender to the 02:49PM</p> <p>3 receiver to hold neighbor information, at least for a 02:49PM</p> <p>4 certain period of time, regardless of whether they get 02:49PM</p> <p>5 utilized. That's my understanding. 02:49PM</p> <p>6 BY MR. WONG: 02:49PM</p> <p>7 Q And how long, approximately, did it take you to 02:49PM</p> <p>8 come up with the syntax for the "lldp holdtime" command? 02:49PM</p> <p>9 MR. CANNON: Objection; vague. 02:49PM</p> <p>10 THE WITNESS: The actual -- the command itself? 02:49PM</p> <p>11 MR. WONG: The actual -- yes, the syntax of the 02:49PM</p> <p>12 command. 02:49PM</p> <p>13 MR. CANNON: Objection; vague. 02:49PM</p> <p>14 THE WITNESS: 15 minutes. 02:49PM</p> <p>15 BY MR. WONG: 02:49PM</p> <p>16 Q Is your answer 15 minutes for all of the commands 02:49PM</p> <p>17 listed in Exhibit 316? 02:49PM</p> <p>18 A No. 02:49PM</p> <p>19 MR. CANNON: Objection; compound and vague. 02:49PM</p> <p>20 MR. WONG: I'm just trying to save time here, 02:49PM</p> <p>21 Mr. Patil. 02:49PM</p> <p>22 Q Okay. What is the function performed by the 02:49PM</p> <p>23 "lldp receive" command? 02:49PM</p> <p>24 A Basically, we announce that we are open on the 02:49PM</p> <p>25 receive channel for that interface. 02:50PM</p> <p style="text-align: right;">Page 193</p>

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<p>1 Q And how long did it take for you to come up with 02:50PM</p> <p>2 the syntax for that command? 02:50PM</p> <p>3 MR. CANNON: Objection; vague. 02:50PM</p> <p>4 THE WITNESS: Several hours because that's where 02:50PM</p> <p>5 we went back and forth on the extensibility, usability, 02:50PM</p> <p>6 redundancy, verbosity, and those discussions. 02:50PM</p> <p>7 BY MR. WONG: 02:50PM</p> <p>8 Q What is the function performed by the "lldp 02:50PM</p> <p>9 reinit" command? 02:50PM</p> <p>10 A It specifies the amount of wait time for the 02:50PM</p> <p>11 protocol to reinitialize at any point in time. 02:50PM</p> <p>12 Q And how long did it take for you to come up with 02:50PM</p> <p>13 the command syntax for the "lldp reinit" command? 02:50PM</p> <p>14 MR. CANNON: Objection; vague. 02:50PM</p> <p>15 THE WITNESS: That's -- that one is in the 02:50PM</p> <p>16 15-minute category. 02:50PM</p> <p>17 BY MR. WONG: 02:50PM</p> <p>18 Q Did it also take you approximately 15 minutes to 02:51PM</p> <p>19 come up with the "lldp run" command? And I'm referring 02:51PM</p> <p>20 to the command syntax. 02:51PM</p> <p>21 MR. CANNON: Objection; vague. 02:51PM</p> <p>22 THE WITNESS: "Lldp run," yes. 02:51PM</p> <p>23 BY MR. WONG: 02:51PM</p> <p>24 Q Did it also take you 15 minutes to come up with 02:51PM</p> <p>25 the syntax for "lldp timer"? 02:51PM</p> <p style="text-align: right;">Page 194</p>	<p>1 than 15 minutes for you to come up with the command 02:52PM</p> <p>2 syntax, setting aside the "lldp transmit" and "lldp 02:52PM</p> <p>3 receive" commands. 02:52PM</p> <p>4 A Right. 02:52PM</p> <p>5 "Tlv-select." Some of the org-specific ones 02:52PM</p> <p>6 are -- they are just basically the -- they -- they are 02:53PM</p> <p>7 straight up describing what they are, so that shouldn't 02:53PM</p> <p>8 have been long. 02:53PM</p> <p>9 I would say "tlv-select," "transmit" and 02:53PM</p> <p>10 "receive," and maybe even "rate" command. Significant 02:53PM</p> <p>11 thought process involved in -- in coming up with the 02:53PM</p> <p>12 right keywords. 02:53PM</p> <p>13 Q I'm sorry, did you say "rate command"? 02:53PM</p> <p>14 A Yeah, "lldp rate." 02:53PM</p> <p>15 Q Oh, okay. So I'm looking at Exhibit 316, and I 02:53PM</p> <p>16 do not believe the "rate" command -- 02:53PM</p> <p>17 A Oh, oh, I see -- 02:53PM</p> <p>18 Q -- is -- is part of that. 02:53PM</p> <p>19 A -- is part of that. Okay. I was looking at 322. 02:53PM</p> <p>20 So among 316, I would say -- 02:53PM</p> <p>21 Q Let me just ask the fresh question so that it's 02:53PM</p> <p>22 clear -- 02:53PM</p> <p>23 A Yes. 02:53PM</p> <p>24 Q -- on the record. 02:53PM</p> <p>25 A Yes. 02:53PM</p> <p style="text-align: right;">Page 196</p>
<p>1 MR. CANNON: Objection; vague. 02:51PM</p> <p>2 THE WITNESS: I don't know that one because I -- 02:51PM</p> <p>3 I recall that some of these had a lot of discussion 02:51PM</p> <p>4 involved, and I -- I can clearly say that transmit and 02:51PM</p> <p>5 receive fell into that category. 02:51PM</p> <p>6 BY MR. WONG: 02:51PM</p> <p>7 Q Of taking longer than 15 minutes? 02:51PM</p> <p>8 A Longer time, longer than 15 minutes. 02:51PM</p> <p>9 Q For the other commands listed on Exhibit 316 that 02:51PM</p> <p>10 are not the "lldp transmit" and "lldp receive" 02:51PM</p> <p>11 commands -- 02:51PM</p> <p>12 A Mm-hmm. 02:51PM</p> <p>13 Q -- do you believe that you spent approximately 02:52PM</p> <p>14 15 minutes coming up with the command syntax for each of 02:52PM</p> <p>15 those? 02:52PM</p> <p>16 MR. CANNON: Objection; vague and compound. 02:52PM</p> <p>17 THE WITNESS: I would say a good 50 percent of 02:52PM</p> <p>18 those, but some of the commands I struggle with myself 02:52PM</p> <p>19 to -- to put out the best initial proposal, so not 02:52PM</p> <p>20 everything is 15 minutes. Some of them took where I 02:52PM</p> <p>21 went back and looked at other things and see what's the 02:52PM</p> <p>22 most usable token to put there and a keyword to put 02:52PM</p> <p>23 there. 02:52PM</p> <p>24 BY MR. WONG: 02:52PM</p> <p>25 Q Which of the commands do you think took longer 02:52PM</p> <p style="text-align: right;">Page 195</p>	<p>1 Q So for the commands listed on Exhibit 316 -- 02:53PM</p> <p>2 A Yeah. 02:53PM</p> <p>3 Q -- which of the commands do you believe you spent 02:54PM</p> <p>4 more than 15 minutes on coming up with the command 02:54PM</p> <p>5 syntax? 02:54PM</p> <p>6 A "Transmit" and "receive," the "show" commands, 02:54PM</p> <p>7 "tlv-select" command, "lldp timer" command, and "lldp 02:54PM</p> <p>8 reinit" command. 02:54PM</p> <p>9 Q Approximately how long do you think it took you 02:54PM</p> <p>10 to come up with the command syntax for the "lldp reinit" 02:54PM</p> <p>11 command? 02:54PM</p> <p>12 MR. CANNON: Objection; vague. 02:54PM</p> <p>13 THE WITNESS: I struggled with it. I'm not 02:54PM</p> <p>14 particularly happy with the way it is right -- right 02:54PM</p> <p>15 here. Reading it is kind of a, for lack of a better 02:54PM</p> <p>16 term, awkward keyword, but I didn't have anything better 02:55PM</p> <p>17 to say -- to use there, so I might have struggled with 02:55PM</p> <p>18 it for 45 minutes. 02:55PM</p> <p>19 BY MR. WONG: 02:55PM</p> <p>20 Q But do you have an actual memory of spending 02:55PM</p> <p>21 45 minutes on this command? 02:55PM</p> <p>22 A Yes. 02:55PM</p> <p>23 Q Okay. 02:55PM</p> <p>24 A I mean, I had something else before, and I took 02:55PM</p> <p>25 it out and rewired the code and etc., yeah. 02:55PM</p> <p style="text-align: right;">Page 197</p>



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1 Q When -- 03:42PM	1 to both of you. 03:44PM
2 A Actually, I'm sorry, I take that back. I do have 03:42PM	2 MR. WONG: Thank you. 03:44PM
3 a legal certificate -- I used to have a legal 03:42PM	3 THE VIDEOGRAPHER: We are off the record at 03:44PM
4 certification. 03:42PM	4 3:45 p.m. This concludes today's testimony given by 03:44PM
5 Q What kind of legal certi- -- certification did 03:42PM	5 Devadas Patil. The total number of media used was four 03:44PM
6 you have? 03:42PM	6 and will be retained by Veritext LLC. 03:44PM
7 A I had a Series 63 at one point. 03:42PM	7 (TIME NOTED: 3:44 P.M.)
8 Q Do you have any training in intellectual property 03:42PM	8
9 law? 03:42PM	9
10 A No. 03:42PM	10
11 Q Did you analyze intellectual property issues when 03:42PM	11
12 you were writing your master's thesis at MIT? 03:42PM	12
13 A No. 03:42PM	13
14 Q Have you reviewed any of Cisco's patents related 03:42PM	14
15 to SysDB? 03:42PM	15
16 A Related to SysDB, I might have glossed over a 03:42PM	16
17 couple of them, but I've not reviewed them in detail. 03:42PM	17
18 Q Are you aware that the administrative law judge 03:42PM	18
19 in an International Trade Commission investigation has 03:42PM	19
20 found that Arista's EOS software infringes Cisco patents 03:42PM	20
21 related to SysDB? 03:42PM	21
22 MR. WONG: Object to the form of the question. 03:43PM	22
23 THE WITNESS: I'm now aware of it, but not before 03:43PM	23
24 a few days ago. 03:43PM	24
25 BY MR. CANNON: 03:43PM	25
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1 Q So you were not aware of that when you wrote your 03:43PM	1 I declare under penalty of perjury
2 master's thesis? 03:43PM	2 under the laws that the foregoing is
3 A No. 03:43PM	3 true and correct.
4 Q Last bit. 03:43PM	4
5 Earlier, do you remember talking about how you 03:43PM	5 Executed on _____, 20____,
6 weren't particularly happy sitting here today with the 03:43PM	6 at _____, _____.
7 "lldp reinit" command? 03:43PM	7
8 A Yes. 03:43PM	8
9 Q Why aren't you happy about that, sitting here 03:43PM	9
10 today? 03:43PM	10
11 A It's not about just today. I was not happy to 03:43PM	11
12 begin with it -- to begin with, because I struggled with 03:43PM	12 DEVADAS PATIL
13 it a lot, and I couldn't come up with a nice term to 03:43PM	13
14 mean reinit, reinitialize, and, yeah, that was the 03:43PM	14
15 source of my dissatisfaction with it. 03:43PM	15
16 Q Do you recall alternatives to "reinit" that you 03:43PM	16
17 considered at the time? 03:43PM	17
18 A I -- like I said, I spent 45 minutes on it, and 03:44PM	18
19 that's the best I could come up with, and given the time 03:44PM	19
20 pressure, I had to propose it and move with it. 03:44PM	20
21 MR. CANNON: Nothing further for me right now. 03:44PM	21
22 MR. WONG: We're done. 03:44PM	22
23 THE WITNESS: Great. 03:44PM	23
24 MR. CANNON: Thank you very much. 03:44PM	24
25 THE WITNESS: Not a problem. I hope it is useful 03:44PM	25
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1 I, the undersigned, a Certified Shorthand  
2 Reporter of the State of California, do hereby certify:  
3 That the foregoing proceedings were taken before  
4 me at the time and place herein set forth; that any  
5 witnesses in the foregoing proceedings, prior to  
6 testifying, were placed under oath; that a verbatim  
7 record of the proceedings was made by me using machine  
8 shorthand which was thereafter transcribed under my  
9 direction; further, that the foregoing is an accurate  
10 transcription thereof.  
11 I further certify that I am neither financially  
12 interested in the action nor a relative or employee of  
13 any attorney or any of the parties.  
14 IN WITNESS WHEREOF, I have this date subscribed  
15 my name.  
16 Dated: March 2, 2016  
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21 RACHEL FERRIER  
22 CSR No. 6948  
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